

4.7% INCREASE

Shipments of lawn power equipment up

Eight-month industry shipments of walk-behind power lawn mowers, lawn tractors and riding mowers, riding garden tractors and rotary tillers increased 4.7 percent over the same period during the previous shipment year, according to estimates by the Outdoor Power Equipment Institute(OPEI).

The eight-month period began September 1, 1979 and ran through April 1980.

Estimated shipments of walk-behind power lawn mowers totalled 4,534,000 units, an increase of 4.5 percent over the 4,337,000 units shipped during the same period last year.

Lawn tractor and riding mower shipments grew 3.6 percent, from 621,000 in 1979 to 643,900 in 1980. Within that category, front-engine riders advanced 4.3 percent, from 370,500 units to an estimated 386,300 units.

Shipments of rear-engine riders increased 2.6 percent, from 251,000 to 257,600 units.

Garden tractor shipments registered a 3.3 percent decline, from 184,600 units in 1979 to 178,500 in the current model year.

THE SOUTH

Post-emergence crabgrass control in bluegrass

Crabgrass was effectively controlled in Kentucky bluegrass when treated twice with either MSMA at two pounds per acre or DSMA at three pounds per acre, in recent tests conducted by Dr. B.J. Johnson, associate professor of agronomy at the University of Georgia.

In the tests, initial turf injury was moderate in one of two years. Tests also showed that treatments should not be applied during a high-temperature period.

In his report on the tests, Dr. Johnson wrote that crabgrass is the most common summer weed in turfgrasses throughout

NOV. 12-14 IN LOUISVILLE

Program set for PLCAA convention

"Lawn Care Business Management in the '80's" is the theme of the convention program for the Professional Lawn Care Association of America's First Annual Convention and Trade Show Nov. 12-14 at the Commonwealth Convention Center in Louisville, Kentucky.

Eleven separate lawn care conference sessions have been scheduled for the three-day program, with a heavy emphasis on business topics.

On Wednesday, Nov. 12, Richard L. White, president of Village Green, Ltd., Chicago, and Robert F. Parmley, president of Tempo 21, Inc., Wheeling, Ill. will discuss the topic: "One Stop, Two Sales."

Later that day, Steve Derrick,

president of Latick, Inc., Normal, Ill. will present: "Is Your Business Plan Set for 1981? Here's How."

Also on the 12th, Dennis McNichol, president of Computer Applications Technology, Inc., Bethesda, Md. will discuss: "Moving Toward the Computer." There will be evening follow-up sessions on computers and financial planning.

On Thursday, Nov. 13, Gordon L. Ober, general manager of Davey Lawnscape, Kent, Ohio will present: "Your New Employee. Will He Represent You Well? What He Really Needs To Know."

Later that morning, J. Martin Erbaugh, president of Lawnmark Associates, Inc., Peninsula, Ohio

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Soil, Crop Sciences Dept.
Texas A&M Univ.

will present: "Direct Mail Is the Only Way To Go." Next up on the program, Dr. Charles H. Darrah III, senior research agronomist for ChemLawn Corp., Milford Center, Ohio will discuss: "Controlled Release Nitrogen Sources for the Lawn Care Industry."

To finish off the morning's program, Birmingham lawyer Richard Lehr will discuss: "How To Pay Your Applicator." After lunch, Jerry Faulring, president of Hydro Lawn, Gaithersburg, Md. will present: "Issues You Can't Avoid in the '80's." Next, Dr. Roger Funk, of Davey Tree Expert Co., Kent, will present: "Pesticide Usage in the '80's." There will be an evening follow-up session on applicator compensation and two other evening workshop panels that night. Doug Baker, executive vice president of Leisure Lawn, Inc., Dayton, Ohio will present: "Expansion: Ways, When, Where." Also, Bob Earley, editor of LAWN CARE INDUSTRY will discuss: "Advertising Media: Take Your Pick."

Companies exhibiting will include mower manufacturers, liquid and dry application equipment manufacturers, pesticide manufacturers, fertilizer manufacturers, and seed marketers.

For further information on the conference and trade show, contact: PLCAA, Suite 1717, 435 N. Michigan Ave., Chicago, IL 60611, or call 312-644-0828.

LAWN CARE INDUSTRY

Serving lawn maintenance and chemical lawn care professionals.

AUGUST 1980 • VOL. 4, NO. 8 • A Harvest Publication

Georgia and the Southeast.

When herbicides are not used for weed control it will compete with both warm- and cool-season grasses and results in reduced turf quality. It grows vigorously, often comprising 95 percent total ground cover by mid-August.

He said crabgrass was effectively controlled in Kentucky bluegrass in an earlier study in Georgia with post-emergence treatments of MSMA (monosodium methanearsonate). Similar results were obtained in

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Average lawn businessman grosses \$117,000 a year

The average lawn care businessman grossed \$117,089 in 1979, according to a recent survey conducted by LAWN CARE INDUSTRY.

The figure was up 16 percent over what readers of the magazine said they grossed in 1978. The 1978 figure was \$100,915. Government figures pegged the 1979 inflation rate at 11 percent.

Projected out to the total read-

ership of the magazine, total 1979 gross receipts for the magazine's readership was \$1.1 billion. Comparable figures for 1978 showed gross receipts of \$950 million for the magazine's readership.

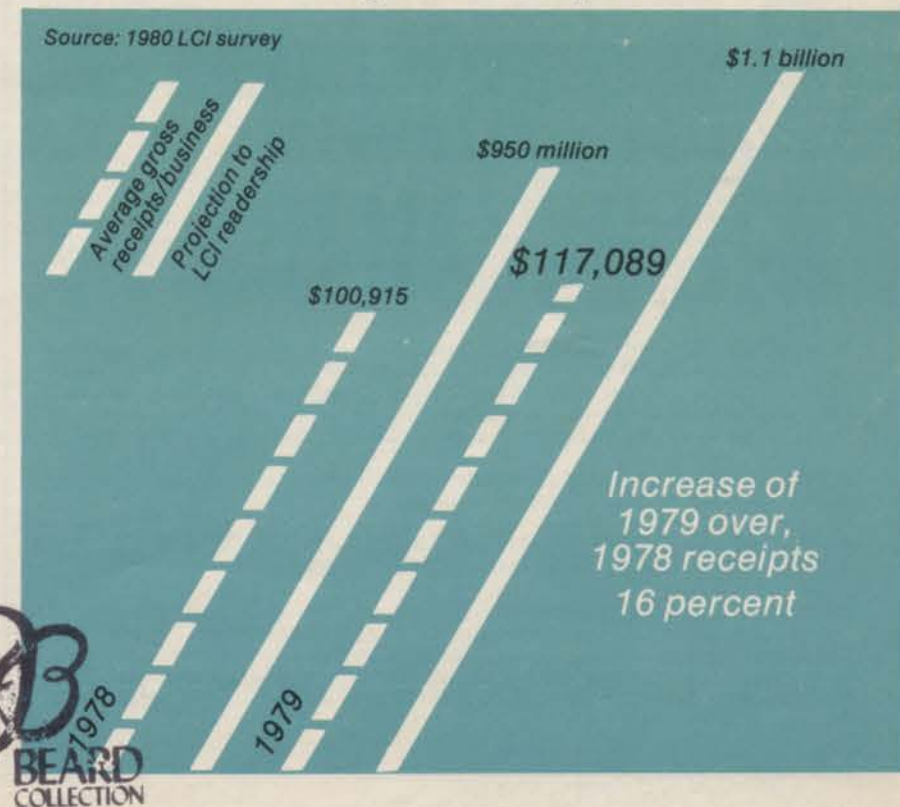
The survey figures are based upon a 53.6 percent response to questionnaires mailed to 500 readers of the magazine in April and May of this year, according to LAWN CARE INDUSTRY

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1979 versus 1978 gross receipts



aims Through a Better see INSIDE THE IN- ing series of indepth at problems the lawn Topics for this feature

LCI SURVEY

Equipment inventory of LCI readership

Almost 79 percent of readers of **LAWN CARE INDUSTRY** own an average of almost seven rotary walk-behind mowers apiece, according to a recent survey of readers of the magazine. This projects out to 50,000 such mowers owned by readers of the magazine.

The survey, conducted in the fall of 1979, outlined equipment inventory of readers of the magazine for the following additional categories: riding mowers, granular applicators, seeders, dethatchers, aerators, pickup trucks, various horsepower tractors and spray tanks.

For riding rotary mowers, 55.5 percent of the readers said they owned an average of 1.99 units, for a readership projection of 10,000.

For riding reel mowers, 15.2 percent of the readers said they owned an average of 1.42 units, for a readership projection of 2,000.

For spray tanks less than 500 gallons, 71.8 percent of the readers said they owned an average of 2.26 units, for a readership projection of 15,000.

For spray tanks of between 500 and 1,200 gallons, 20.5 percent of the readers said they owned an average of 2.72 units, for a readership projection of 5,200.

For spray tanks more than 1,200 gallons, 3.36 percent of the readers said they owned an average of 7.4 units, for a readership projection of 2,300.

For granular applicators, 86 percent of the readers said they owned an average of 4.18 units, for a readership projection of 34,000.

For seeders, 67.9 percent of the readers said they owned an average of 2.33 units, for a readership projection of 15,000.

The survey is based upon a 47.4 percent response to questionnaires mailed to 500 readers of **LAWN CARE INDUSTRY**, according to magazine market research manager Clarence Arnold.

MEMOS

Garden centers to cash in on lawn care? A recent editorial in *Garden Supply Retailer* magazine by editor Richard W. Chamberlin urged garden retailers to cash in on the growing lawn care market.

He wrote: "Every retailer wants to build up traffic in the spring and sell lots of fertilizer, chemicals, sprayers and spreaders. So doesn't it make sense to be concerned about the rapid growth of the lawn care industry in many parts of the U.S.?"

Where does the growth of the lawn care industry leave the retailer? Chamberlin wrote: "Perhaps facing a considerable drop in business unless something is done. Well-trained professional lawn care people in fancy trucks are swarming all over this country providing a service many homeowners can't resist. Frequently, it is cheaper for a homeowner to hire them than it is to do the work; they can achieve a better lawn by hiring a lawn care service."

He said that a survey of his readers 18 months ago revealed no great concern over this competition. He said he feels it is time for retailers to change their minds and take a long, hard look at a very serious competitor.

"You should have a management meeting immediately and discuss the situation in your area," Chamberlin continued. "Perhaps assign someone from your firm to research just how many of your customers are using lawn care services. The next step would be to consider offering this service yourself. This would not be an unprecedented move. Retailers of farm supplies have been custom applying fertilizer and ag chemicals for farmers for years, charging \$3 an acre (more or less).

"And garden supply retailers have traditionally performed custom services such as landscaping. Why not lawn care services? You don't tell your landscaping customers, 'Here are the plants, the trees, the sod, the rock, the railroad ties and the tools. Come to my store to buy these materials and install them yourself.' Yet you tell your lawn care customers, 'Here is the fertilizer, the lawn chemicals and the application equipment. Come in and buy it and apply it yourself.'"

"Many homeowners are tired of buying or renting spreaders or sprayers, struggling with complicated label instructions and spreader or sprayer settings, and then trying to do a decent job covering all of their lawn. They are eager to turn the job over to a professional for just a few dollars more. Why shouldn't you be that professional? It would be a natural tie-in with your business.

Chamberlin finished by writing: "You could continue to provide the fertilizer, chemicals and application equipment for the do-it-yourselfer, and benefit from that store traffic. But you would also serve this new market that otherwise will take business away from you. The choice is yours. It's not too late, but the ball is in your court."

Is your lawn care business strong enough to withstand increased competition from garden supply retailers in your area?

Perf-A-Lawn holds turf school: A letter we received recently from Mark A. Tamn, director of franchise training for Perf-A-Lawn Corp., New Carlisle, Ohio, detailed part of his company's training program for franchisees:

"I would like to take the opportunity to tell you of the Southern Region Turf School which we held at our Nashville, Tenn. office, on June 10 and 11.

"The training session encompassed among other things, trouble-shooting for turf problems, soils and fertilizers, and a motivational set concerning professionalism. The turf session was designed for our franchisee's in the transition and southern zones. Since the majority of our franchisees are new to the lawn care business, we feel that training such as this is necessary in educating our franchisees agronomically in their geographical area."

Pre-payment plans revisited: Jim Sackett, owner of Leisure Lawn, Troy, Ohio, had some comments about assistant editor Kathy Milgate's article on pre-payment discount plans, which ran in **LAWN CARE INDUSTRY's** June issue (see "Pre-Payment Plans Generate Quick Cash" page 1).

Sackett questioned what he called the negative aspects of the story, saying his company has always used discount plans with much success. He said:

"We've been offering a discount plan ever since we've been in the business. If you offer your customers a six percent discount, then turn around and invest the money at 12 to 18 percent, you can make money for your company. Some businessmen quoted in the story mentioned needing two price structures, especially when refunding money. I don't understand that. I find there are less cancellations when people pre-pay."

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

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MEETING DATES

1980 Penn State Turfgrass Field Days, Joseph Valentine Turfgrass Research Center, Pennsylvania State University, University Park, Pa., August 6-7. Contact: Dr. Joseph Duich, 21 Tyson Building, Department of Agronomy, University Park, PA 16802, 814-865-9853.

Residential Landscape Design Course I, Seattle, Wash., August 7-9. Contact: John Shaw, executive director, Associated Landscape Contractors of America, 1750 Old Meadow Road, McLean, VA 22102, 703-821-8611.

Iowa State University Turfgrass Field Day, Horticulture Research Station, Ames, Iowa, August 12. Contact: A.E. Cott, extension horticulturist, Department of Horticulture, Iowa State University, Ames, IA 50011, 515-294-1870.

Lawn, Garden Outdoor Living, Division of National Hardware Show, McCormick Place, Chicago, Ill., August 13-16. Contact: National Hardware Show, Charles Snitow, 331 Madison Ave., New York, NY 10017, 212-682-4802.

Tan-Misslark Trade Show, Astro Hall, Houston, Texas, August 16-19. Contact:

Bill Fullingim, Texas Association of Nurserymen, 512 E. Riverside Drive, Austin, TX 78704, 512-444-7489.

Rhode Island Turfgrass Field Day, Turf Research Farm, University of Rhode Island, Kingston, R.I., August 20. Contact: Professor C.R. Skogley, Plant and Soil Science Department, University of Rhode Island, Kingston, RI 02881, 401-792-2570.

Western Regional Grounds Maintenance and Equipment Show, Bear Creek Park, Colorado Springs, Colo., August 26. Contact: Frank Cosgrove, regional director, National Recreation and Park Association, 3500 Ridge Road, P.O. Box 6900, Colorado Springs, CO 80934.

Ohio Turf and Landscape Day, Ohio Agricultural Research and Development Center, Wooster, Ohio, September 9. Contact: Dr. Dave Nielsen, OARDC, Wooster, Ohio 44691, 216-264-1021.

1980 Interior Landscape Conference, Fairmont Hotel, Denver, Colo., Sept. 10-13. Contact: Associated Landscape Contractors Association Interior Landscape Division, 1750 Old Meadow Road, McLean, VA 22102, 703-893-5440.

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

VPI & SU Turfgrass Research Field Days, Turfgrass Research Center, Blacksburg, Va., September 16-17. Contact: John R. Hall, III, extension specialist, VPI & SU, 426 Smyth Hall, Blacksburg, VA 24061, 703-961-5797.

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

International Franchise Association Tax Seminar, Hyatt Regency O'Hare, Chicago, Ill., September 22-24. Contact: IFA, 1025 Connecticut Ave., N.W., Suite 1005, Washington, D.C., 20036, 202-659-0790.

Northwest Turfgrass Annual Conference, Sunriver Lodge, Sunriver, Ore., September 22-25. Contact: Dr. Roy Goss, executive secretary, Northwest Turfgrass Association, Western Washington Research and Extension Center, Puyallup, WA 98371, 206-593-8513.

Central Plains Turfgrass Foundation, Kansas State University Turf Conference, KSU Union, Manhattan, Kan., September

30-October 2. Contact: R.N. Carrow, secretary/treasurer, Horticulture Department, Waters Hall, Kansas State University, Manhattan, KS 66506, 913-532-6170.

16th Annual Turfgrass Equipment, Irrigation and Supplies Field Day, Rutgers stadium and golf course, Piscataway, N.J., Oct. 7. Contact: Dr. Henry W. Indyk, executive director, Soils & Crops Department, P.O. Box 231, Cook College, New Brunswick, NJ 08903, 201-932-9453.

Kentucky Turfgrass Conference & Field Day, Eastern Kentucky University, Richmond, Ky., October 7-9. Contact: Kenneth B. Rue, president, Kentucky Turfgrass Council, 3110 Brownsboro Road, Louisville, KY 40206, 502-893-7137.

Franchise Management Workshop, Beverly Hills Hotel, Beverly Hills, Calif., October 8-9. Contact: International Franchise Association, 1025 Connecticut Ave., N.W., Suite 1005, Washington, D.C., 20036, 202-659-0790.

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, OH 43085, 614-885-9588.

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

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

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

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

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

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

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

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

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

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

Maintenance Symposium, Washington Plaza, Seattle, Wash., December 1-3. Contact: John Shaw, executive director, Associated Landscape Contractors of America, 1750 Old Meadow Road, McLean, VA 22101, 703-893-5440.

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

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



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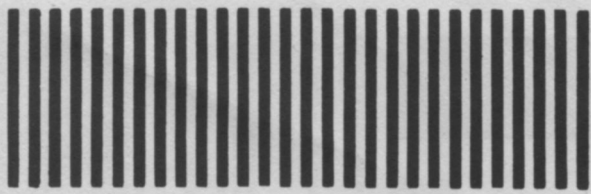
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MONEYWISE

Coping with customer expectations

Why do customers cancel? Lawn care businessmen have been asking themselves that question since the industry first began in the early 1960's. The most likely reason for cancellations, according to Philip Catron, regional agronomist for ChemLawn Corp., is unrealistic customer expectations, prompted by misleading advertising and a lack of communication between the customer and the lawn care technician.

Catron, speaking at the Pennsylvania Turfgrass Conference, traced the causes of unrealistic customer expectations to three primary sources: retail advertising, extension service bulletins and lawn care advertising.

Retail advertising constantly reinforces the concept that the typical lawn is a lush green "carpet" uninhabited by a single pest or weed. Catron suggests that these ads paint a "psychological picture" in the customer's mind that simply is not accurate.

"University and extension bulletins also help to promote the idea that taking care of a lawn is not really that hard a job," he added. Stories designed to educate a mass audience

about lawn care often appear in local papers from extension service personnel. However, this information may not be accurate in specific cases, according to Catron.

"What I'm saying is don't get irritated at the extension people for doing their job, but be ready to explain to your customers that what they (extension bulletins) say may not be true in every particular case."

Catron described lawn care businessmen themselves as the "biggest contributor" to unrealistic customer expectations. Virtually all lawn care advertising carries a photo of an exceptionally green, well manicured lawn, and many customers come to expect their lawn to look like that photo within a few short weeks. "Putting that kind of lawn into the customer's mind is not so bad, but it can lead to problems if it's carried too far," he said.

The solution? Catron suggests redesigning existing brochures. "Don't make it (advertising) look like a picture perfect lawn. Make it look like a nice lawn certainly, but don't overdo it."

A second step is increased customer education. "There's a lot of public relations work you can do," Catron said. Speak to garden clubs and civic groups, submit articles to newspapers and, most importantly, "sell your program honestly." In the long run it could save you money in the form of fewer cancellations.

TREES

Oak wilt threatens midwestern oaks

Oak wilt kills thousands of oak trees in Wisconsin and other midwestern states each year, with particularly bad damage in the southern two-thirds of the state of Wisconsin, according to Gayle Worf, University of Wisconsin extension plant pathologist.

"Oak wilt is a close biological relative of Dutch elm disease, although not as destructive," Worf said.

There is no cure for the disease, which attacks both red and black oaks, but control measures can stop the disease from spreading.

The oak wilt fungus is spread in two ways. Insects, especially picnic beetles, carry the oakwilt fungus from infected trees to fresh wounds on healthy trees. Connecting roots (known as root grafts) of trees growing within 50 feet of each other serve as natural pipelines for the fungus.

The fungus invades the water-conducting vessels in the sapwood of the tree. In a few days, the vessels become plugged, cutting off the water flowing from the roots to the leaves.

The leaves farthest from the roots begin to wilt first, Worf said. Initially, a slight curling and paling appear on the tips of the leaves. Within a few weeks, leaves gradually turn brown or bronze and drop. The outer ring of wood under the bark may appear brown or black.

To control oak wilt, Worf recommends treating wounds on oak trees promptly. Avoid pruning oak trees in late spring or summer. Cover all wounds (including those made by pruning) immediately with tree paint or wound dressing.

If you have two oaks within root-grafting distance and one becomes infected, all roots midway between the two trees must be severed either mechanically or chemically. Worf says to act quickly because the fungus can spread rapidly to nearby oaks.



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NEWSMAKERS

Fred Whitcomb is a sales manager for **Rhone-Poulenc, Inc.**, based in Rockford, Ill. Aden H. Francis is a sales representative based in Galesburg, Mich. The company is headquartered in Monmouth Junction, N.J.

Bolton W. Jones Jr. is a sales manager for specialty and technical products for **Elanco Products Co.**, Indianapolis.

Payne Supply, Inc., Salt Lake City, Utah, has been appointed as a full-line distributor for products manufactured by **Solo, Inc.**, Newport News, Va.

A major reorganization of the executive structure of **Gravelly, Clemmons, N.C.** has been announced by president R.A. Kenkel. Jim Fischer, formerly vice president of marketing, was promoted to executive vice presi-



Kenkel



Fischer

dent. Rick Murray assumes responsibility for all North American sales, including Gravelly's company-owned branch operation, which will be under the direction of Bernie Biller, national branch manager.

Wes Wilson is president of **Big Bear Equipment, Inc.**, Omaha, Neb. A second company, **Big Bear Turf Equipment Co.**, is based in Des Moines, Ia. The company has just been awarded the **Jacobsen** and **Cushman** turf contracts for eastern Iowa. Operations will be based in the quad-city area, Wilson said.

Stephen Champ is president of **Greentree, Inc.**, Atlanta.

Mathew Narog is president of **Lawn Clinic, Inc.**, Cupertino, Calif.

Dave L. Smith, Jr. is owner of **Lawn Care**

Dave L. Smith is owner of Lawn Care & Landscaping, McHenry, Ill.

Gary D. Carstens is president of **World of Green, Inc.**, Lincoln, Neb. The company offers mowing/maintenance, and liquid and granular chemical lawn care.

Sebastian Martello is sales manager of **Recommend Lawn Care, Inc.**, Centereach, N.Y.

Ronald H. Swanson is president of **Highland Landscape, Inc.**, South Bend, Ind. The company offers chemical lawn care.

Dr. John Larry Sanders has been appointed assistant vice president of **United States Testing Co., Inc.**, a leading independent testing and inspection organization with laboratories in 14 states. The company is based in Hoboken, N.J.

Kathy Allen is landscape manager for **M.S. Management Associates**, located in the Jefferson Square Mall in Joliet, Ill.

Sid North has been named Los Angeles branch manager for **Northrup King Co.**, Minneapolis, replacing Wayne Ashby who has been promoted to the firm's Pacific Division headquarters at Fresno, Calif., to become the division's sales and marketing director.

Steve Tubbs has joined the sales staff of **Great Western Seed Co.**, Albany, Ore.

Arthur H. Bruaneau is assistant instructor in turf extension at the **University of Nebraska**, working closely with Drs. Robert Shearman and Terry Riordan.

Tony F. DeFranco is president of **DeFranco Landscape, Inc.**, Solon, Ohio. The company offers mowing/maintenance and granular chemical lawn care.



Future Lawn Care Operators of America?

You've heard of the organization Future Farmers of America. How about Future Lawn Care Operators of America? Michael Lenihan, two-year old son of P.J. and Frances, doesn't think it's a bad idea.

Here, he proudly models one of Lawn Medic's attractive uniforms in miniature. The uniform was a gift from the elder Lenihan's sister, Sue Vasdikis, and is identical to the uniforms worn by Lawn Medic employees across the country. Lenihan is owner of Lawn Medic of the Triad, Inc. in Winston-Salem, N.C. He started the business in 1974 and currently grosses about \$150,000 annually on service to approximately 700 accounts.

Stephen Czarnecky is owner of **Lawn Care**, Vallejo, Calif.

Charles McCormick is general manager of **Guaranteed Weed Control**, a division of **Quality Pest Control, Ltd.**, Don Mills, Ontario, Canada. The company offers chemical lawn care and products supply.

David Ekvall has been named an area manager for the **Kohler Co. Engine Div.**, Kohler, Wis.

Rodney Marshall is manager of **Lawnpros Division of Grand View Nursery**, Hannibal, Mo. based in Worthington, Ohio. The company is headquartered in Bensenville, Ill.

Charles T. Willey, who was associated with **The Toro Co.**, Minneapolis, for 20 years, has joined **The Norton Corp.** Phoenix as vice president and general manager of the firm's equipment/irrigation division.

David L. Klipp is president of **Turf Tailors, Inc.**, Fayetteville, N.Y.

Charles W. Pate is regional marketing manager for **Fisons, Inc.**, Based in Marietta, Ga. The insecticide and herbicide manufacturer is based in Bedford, Mass.

Russell T. Davis is owner of **Montclair Landscaping**, Dumfries, Va.

Jerry Haire is owner of **Greenleaf Lawn & Tree**, Waco, Texas. The company offers chemical lawn care and tree care.

Edward Miner has been named sales supervisor in the Midwest for The Agricultural Chemicals Division of **Diamond Shamrock Corp.**, Cleveland, Ohio.

Hugo H. Steuernagel is owner of **Brothers Landscaping and Design Co.**, East Patchogue, N.Y. The firm, established in 1969, specializes in grounds maintenance, applies both liquid and granular chemicals, and also does ornamental spraying, landscape design and construction.

Kevin J. Cassidy is co-owner of **C & W Landscaping**, Suffield, Conn.

Michael J. Hunt and Diane E. Brown are principals in **Guardian Landscape and Tree Maintenance**, Lansing, Mich.

David Ropp is owner of **Systems III Landscape Maintenance**, Stanwood, Mich. The firm also handles landscape contracting.

Bob Jacobson and Russ Sawyer are principals in **Nutri-Turf**, Sioux City, Ia. The company offers chemical lawn care and seeding.



Maurer



Nuter

Howard E. Maurer has joined **Jacobsen Div. of Textron, Inc.**, Racine, Wis. as manager of credit and collections.

Gwenn Nuter has been appointed manager, salaried personnel at the Brookhaven, Miss. manufacturing facility of **Jacobsen Div. of Textron, Inc.**, based in Racine, Wis.

John R. Page is a manager for **Tru-Green Corp.**, Wyoming, Mich. The company is headquartered in East Lansing, Mich.

Rene J. Maguet is owner of **The Grassman**, St. Clair Shores, Mich. The company offers liquid and granular chemical lawn care and mowing/maintenance.

Joseph W. Stout III is president of **Complete Lawn Service, Inc.**, Arlington, Va. Stephen J. Pida is vice president and Russell A. Stout is lawn foreman. The company offers liquid and granular chemical lawn care and mowing/maintenance.

Max G. Graham is president of **Graham Lawn Care Equipment**, Douglasville, Ga. His company manufactures lawn spray equipment and also has a liquid chemical lawn care outlet.



George McDonald (left), service manager for Lawn Doctor of Matawan, N.J. receives a plaque from Lawn Doctor President Tony Giordano commemorating his 10th anniversary with the company. McDonald also received a wristwatch bearing the "green thumb" Lawn Doctor logo and \$500 from franchise owner John Gerardi in recognition of his service.

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WEEDS

Controlling yellow nutsedge in turf

During the last few years, turf researchers at Virginia Tech have evaluated a relatively new herbicide — bentazon — for weed control in various turfgrasses.

According to S.W. Bingham, professor of plant physiology, and N.K. Rogers, extension specialist in weed control, Bentazon appeared to provide dependable yellow nutsedge control in established bluegrasses, bentgrasses, bermudagrasses and fescues.

Some other weeds (mainly Broadleaf) may also be controlled with Bentazon treatments; however, the merits of this herbicide for turfgrasses are realized when yellow nutsedge is part of the weed problem.

Bentazon is marketed under the trade name Basagran by BASF Wyandotte Corp., Parsippany, N.J.

There are two important nutsedges occurring as weeds in crops and turfgrasses. In Virginia, yellow nutsedge presents the main problem. In the Tidewater area of the state, purple nutsedge may also occur. Yellow nutsedge generally has light green to yellowish leaves; yet, under high fertilization may be deep green.

The stem has three sides (triangular shape) and forms a basal bulb below the soil surface. Rhizomes grow out from this bulb and terminate in another bulb which eventually becomes another plant. Purple nutsedge forms chains of bulbs on these rhizomes (there may be five or more in a chain-like fashion). Purple nutsedge also has a purple cast when it begins to flower.

Yellow nutsedge grows well under a wide range of soil conditions and out-competes many plants under high moisture conditions. It can replace bermudagrass or bentgrass in moist places. It withstands cooler climates than does purple nutsedge and yet grows well at the equator. Yellow nutsedge is a serious weed on more than two-and-one-quarter million acres in the eastern United States.

Tuber or bulb dormancy does present some problem during control efforts. Not all tubers will have actively growing shoots and are not appreciably controlled with a given herbicide application.

The sodium salt of Bentazon is water-soluble and is applied in a water spray to the foliage of the weeds. Being water-soluble, rainfall within a few hours of application will reduce the effectiveness of yellow nutsedge control. It is absorbed into the leaves, but it does not translocate very well in the plant. This means that good coverage of weeds is essential for good success.

Bentazon kills plants by interfering with photosynthesis, the food-producing process in plants. It appears to be selective for control of weeds that fail to metabolize and conjugate the chemical to inactive materials. Bentazon does leach slightly with little absorption on clay part-

icles. Microbial breakdown occurs quite readily, little or no loss occurs from photodecomposition or volatilization and persistence of Bentazon is usually less than six weeks.

Bentazon is applied post-emergence to yellow nutsedge in an active growth stage. If the turfgrass is mowed, it appears better to wait about a week for new growth to occur and leaves of nutsedge to extend above the turfgrass. A split application 10 days apart is generally superior to single treatments.

In addition to yellow nutsedge, Bentazon controls wild mustards, smartweed, shepherds-purse, prickly sida, common purslane, velvetleaf, ragweed, thistles and a few other broadleaf weeds under good growth conditions. Purple nutsedge does not appear very sensitive to Bentazon and thus, you should identify the species before using Bentazon for nutsedge control.

COST CUTTINGS**Small business management books available**

A number of excellent publications on running a small business such as a lawn care business are available from the U.S. government at very low cost. Here is a listing of some of them and how to get them.

Buying and Selling a Small Business. 128 pages, code number S/N 045-000-00164-4, cost is \$3.50.

Starting and Managing a Small Business of Your Own. 104 pages, code number S/N 045-000-00123-7, cost is \$3.50.

Managing for Profits. 164 pages, code number is S/N 045-000-00005-2, cost is \$2.75.

Strengthening Small Business Management. 164 pages, code number is S/N 045-000-00114-8, cost is \$4.00.

Selecting Advertising Media. 140 pages, code number is S/N 045-000-00154-7, cost is \$3.75.

A Handbook of Small Business Finance. 68 pages, code number is S/N 045-000-00139-3, cost is \$3.00.

For further information, contact: Superintendent of Documents, U.S. Government Printing Office, Washington DC 20402.



Root systems often overlooked in turfgrass management programs

Management practices of lawns tend to consider only the visible foliage, often overlooking the importance of the root system, says Dr. Lloyd M. Callahan of the University of Tennessee.

"The root system of turfgrasses is fibrous and extensively branched," he told attendees at the Midwest Turfgrass Conference at Purdue University earlier this year. "The function, longevity and health of the root system is directly affected by a multitude of natural and induced factors. Some soil conditions adversely affecting root growth are:

- Waterlogged soils.
- Low soil oxygen.
- Compacted soil and/or soil with high clay content.
- Very high or low soil tem-

peratures.

- Very high or low soil pH.
- Toxicity of high salt concentrations.
- Toxicity from pesticide residues.

Biological and cultural factors influencing root growth and development include:

- Mowing too high or low.
- Scalping.
- Nutrient deficiencies or toxicities.
- Excessive nitrogen.
- Heavy thatch accumulation.
- Excessive irrigation.
- Excessive wear and traffic injury.
- Injury from diseases, nematodes and insects.

The root system in many ways can be considered the heart of

the turfgrass plant. It takes up and supplies the life-giving fluids and nutrients in accordance with the demands of the foliage. The greater the demands and needs of the foliage for water and nutrients, the greater the stress and restrictions in growth placed on the roots.

Regeneration of the root system is a continuous process with the life of a root system varying from a few weeks to well over a year. A root can generally be divided into two functional areas: The "active" and the "passive" region. The active region is the root tip, which in turfgrass varies from about two to 10 millimeters in length with most being from two to four millimeters in length.

There are thousands of root tips distributed throughout a root system. However, the active region, as compared to the remaining passive region, comprises less than one-tenth of one

percent by weight of the total root system.

Functions of the active region are varied and complex. New cells are continually formed in the meristematic tip as sufficient carbohydrates are available to support the generation of new cell growth. This region normally is from one-half to one millimeter in length. Cells in the active region can be considered elastic and flexible.

The process of cellular enlargement and elongation is responsible for the movement of the root through the soil. With further maturation and differentiation, root hairs form as extension and epidermal cells and vascular tissues come fully developed.

At least 95 percent of water and nutrient uptake by the plant occurs through root hairs. With movement through the vascular system, upward transport occurs to above-ground plant parts, the foliage. New lateral roots form from a cylinder of cells called the pericycle.

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The root system is the heart of the turfgrass plant, supplying life-giving fluids and nutrients according to the demands of the foliage.

The passive region of the root also has important functions. Although cells in this segment of the root are much older, less elastic, and lack flexibility, they are quite strong. This is the root portion which serves to anchor the plant to the soil, stabilize the soil rootzone, and serves in transport of water and nutrients taken up by root tips to above-ground plant parts. A small carbohydrate reserve can be stored in this region also.

Destruction of root tips without allowances for new tips to develop generally spells death for the entire root system, and sometimes for the over-ground plant parts. In the normal life cycle of cool-season grasses, death of roots is commonly associated with heat stress periods. Regeneration of new roots generally follows this stress period.

Recent findings at Texas A & M University show that the root system of Tifgreen bermudagrass generates during the flush of new foliage growth during the break of dormancy in the spring. Subsequently, a new root system begins developing a few days following the initiation of new leaf growth. During the spring new root growth period it would appear logical that Tifgreen bermudagrass would be very susceptible to damage and injury from close mowing, traffic, insects, diseases, high nitrogen, drought and herbicides.

Roots are obviously important to the health and survival of the entire turfgrass plant. Management programs for turfgrasses should include the root system if the foliage is to have a chance to fulfill its physical and aesthetic functions.



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Tips for ornamental plant care during fall and winter

What cultural practices are you going to apply to your customer's ornamental plants now that fall is almost here and winter is rapidly approaching?

Paul L. Smeal, extension specialist in horticulture and nursery production at Virginia Tech offers some tips on planting, fertilization, watering, mulching, pruning and use of anti-transpirants.

Planting. It was thought that only spring and fall was the proper time to plant or transplant ornamental plants. Actually, plants may be planted any time that the ground is not frozen. Thus, if there are plans for new plantings or renovation of old plantings, plan to do it soon. A major planting problem is the planting of plants too deep.

Plants should be set in the ground at the same depth as grown in the nursery, or as it previously was growing if it is being moved. Many plants die, both shrubs and trees, as a result of planting them too deep. Any trees planted should be staked so the roots have the opportunity to become well-rooted into the soil surrounding the root ball.

Fertilization. It is often mentioned that plants should not be fertilized after mid-summer because it would stimulate new growth that would be injured by fall frost or winter-killed. This belief and practice resulted in the plants entering winter in a nutrient-deficient or weakened condition.

A weakened plant is more apt to receive winter injury from a severe winter. Recent research has shown it is desirable to fertilize trees and shrubs in the fall after there has been sufficient cool weather or a killing frost that has caused the plant to become dormant. With a fall application of fertilizer, the fall and winter moisture will dis-

solve the fertilizer and move it into the soil for roots to absorb.

Root absorption will occur, and when the spring and warm weather arrives, the plant will have the nutrient readily available to support the new growth. When a spring fertilizer application is made, it quite commonly becomes hot and dry, and the fertilizer is not dissolved and available until the fall and winter.

Thus, there is a year's delay in the plant's benefitting from a spring fertilization. A 10-10-10 or similar complete fertilizer is suitable for most ornamental plants. It is desirable to have a soil test made before adding any fertilizer as there is more a tendency to over-fertilize than to under-fertilize. Also, fertilization will not solve problems of planting too deep, poor drainage, overwatering and other bad cultural practices.

Watering. Watering is often neglected during the winter, but winter is often a critical time for many of the broadleaf evergreens, especially those set out in the fall. The leaves are actively growing and they are giving off moisture into the atmosphere continuously. Get out the hose and water the evergreens, especially the broadleaf evergreens if the ground becomes dry.

Mulching. A winter mulch is desirable to conserve moisture and to maintain a more uniform soil temperature. It prevents the alternate freezing and thawing of the soil that commonly occurs during the late winter and spring months which is detrimental to herbaceous perennials, heaving the crowns out of the soil and leaving the roots exposed.

A winter mulch is applied after the plants become dormant

TOOLS, TIPS & TECHNIQUES

Cutting hours off lawn-mowing time

According to experts with the Jacobsen Division of Textron, Inc., Racine, Wis., major consideration should be given to the lawn mower's cutting width and size of the lawn to be mowed before selecting the type of cutting unit best suited to send out on the job.

For example, it would take 171 separate passes and 2.3 hours to cut an acre of grass using a walk-behind mower with an 18-inch cutting width compared to only 75 passes and an hour of time to cut the same acre with a riding mower that cuts a 36-inch path.

The following information helps compute lawn-cutting time by comparing a mower's cutting width with the number of passes required to complete the job and total travel time per acre in miles. The information outlines cutting one acre — 200 feet by 217 feet — and allows a four-inch overlap on each pass.

As said before, with a mower cutting width of 18 inches, it would take 171 swaths, 6.9 miles of travel and 2.3 hours. With a mower cutting width of 21 inches, it would take 141 swaths, 5.7 miles of travel, and 1.9 hours. With a mower cutting width of 24 inches, it would take 120 swaths, 4.9 miles of travel, and 1.6 hours.

With a mower cutting width of 30 inches, it would take 92 swaths, 3.7 miles of travel, and 1.2 hours. With a mower cutting width of 36 inches, it would take 75 swaths, 3.0 miles of travel, and 1.0 one hour. With a mower cutting width of 48 inches, it would take 55 swaths, 2.2 miles of travel and 0.7 hour of time.

and the ground is cold or frozen. The purpose of a winter mulch is not only to protect against the cold, but to protect against the warmth of late winter. There are many organic mulches available, and the wood chips are probably the most readily available and least expensive. Wood chips are very effective as a mulch and will completely decompose and add humus to the soil.

Winter pruning. Needled and non-flowering broadleaf evergreens may be lightly pruned at this time to check the plant from getting any larger. The flowering broadleaf evergreens, such as azaleas, rhododendron,

laurel, etc., should be pruned after flowering in the spring. This is also the time to prune shade trees.

Anti-transpirant. Protective sprays or anti-transpirants, such as Wilt-Pruf NCF, Vapor Gard, etc. may help to reduce the winter browning of broad-leaved evergreens, Smeal said. The anti-transpirants help reduce excessive loss of moisture through the leaves caused by excessive transpiration. It is recommended to spray at least twice during the winter season, December and late January or early February and when the temperature is warm to insure an even and thorough coverage.

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LAWN CARE INDUSTRY

9800 Detroit Ave., Cleveland, OH 44102

Inside the industry

Preventing discrimination claims through a better understanding of the 1964 Civil Rights Act

The success of the lawn care industry means that many lawn care employers may be subject to federal labor laws. Though a typical industry employer would likely be classified as a small businessman, he is just as big from the labor perspective as an employer with 80 or 90 employees. In particular, a lawn care employer who employs 15 or more individuals for 20 weeks during the calendar year must comply with the equal employment mandates of Title VII of the 1964 Civil Rights Act.

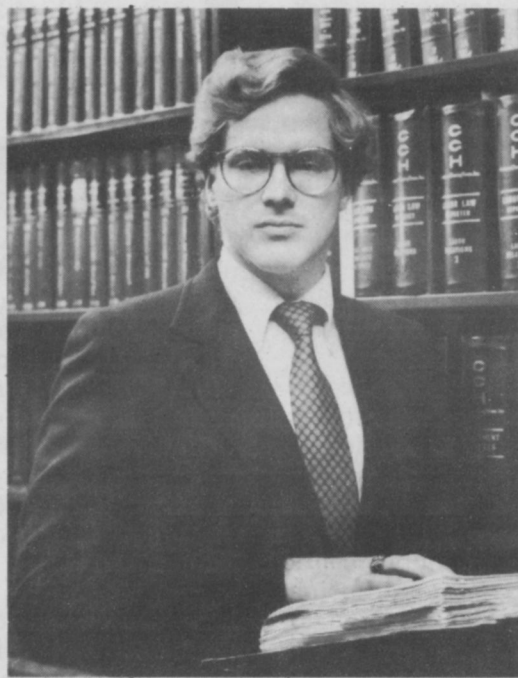
Broadly speaking, the 1964 Civil Rights Act was intended to eliminate racial discrimination in areas such as education, housing and the work place. The term "discrimination" simply means treating two people who are similarly situated in a different manner. Title VII prohibits governments, unions and employers from discriminating against an individual on the basis of race, color, religion, sex or national origin. Additionally, the Age Discrimination in Employment Act (ADEA) prohibits discrimination on the basis of age if an individual is between 40 and 70. Employers with 20 or more employees during the calendar year are covered by this act.

Title VII and the ADEA are administered by the Equal Employment Opportunity Commission (EEOC). (For the sake of simplicity, any subsequent references to Title VII shall also include the ADEA.) The EEOC has numerous regional and district offices across the country, and it employs investigators and attorneys to respond to discrimination charges. Many states have enacted similar anti-discrimination statutes. Charges filed with the appropriate state agency can still lead to the EEOC. Thus, this article focuses on Title VII, the EEOC, and how lawn care employers can prevent and defend against equal employment problems.

A typical EEOC charge begins when an individual, whether an applicant, current employee or former employee, files a charge of discrimination with the EEOC. The EEOC then sends a copy of the charge and a date to the employer for a scheduled conference to discuss the charge with an EEOC representative and the charging party. At this conference, the employer explains his position about the circumstances leading to the charge, citing as many well-documented, objective factors as possible. From that initial meeting with the EEOC, the charge is either withdrawn, settled or proceeds to further EEOC investigation and possible litigation.

The EEOC is not principally concerned with an employer's intent. Instead, the EEOC requires that the employer demonstrate non-discriminatory reasons for

employment decisions which affect two or more people differently. For example, if a man and woman apply for the same job and the man is hired, the employer will not dispel claims of discrimination by stating that



"If a man and a woman apply for the same job and the man is hired, the employer will not dispell claims of discrimination by stating that he lacked discriminatory intent. Instead, the employer must demonstrate that the man was hired because he was better qualified for the job." — Richard I. Lehr, attorney.

he lacked discriminatory intent. Instead, the employer must demonstrate that the man was hired because he was better qualified for the job, not because of his sex.

Every employment decision is covered by Title VII, ranging from giving an individual an employment application to decisions whether to hire, fire, demote, promote, lay off or terminate. As these examples indicate, Title VII is a most extensive federal labor law. A Title VII matter can take years to resolve, and may involve backpay liability for a number of employees. Thus, it is far more cost-effective for lawn care employers to invest in actions and procedures for preventing Title VII claims, than to gamble that no claims will arise. Even if an employment discrimination charge slips through the

prevention procedures, those procedures will contribute to successfully resolving the charge.

Prevention procedures can work if employers accept the proposition that any currently satisfied employee, regardless of race, age or sex, may be tomorrow's malcontent. The change in attitude may be unrelated to work, such as domestic or financial troubles. However, ultimately, those matters will affect job performance.

Three principles are basic to preventing equal employment problems. First, employment decisions must be documented. This means that if at any time a court or the EEOC were to inquire about an employment decision, the lawn care employer should be able to open a personnel file and show a documentation of dates and events which led to a particular decision. Second, employers should explain to employees why disciplinary actions were taken. Employees who are not told why they were disciplined or terminated may go to the EEOC for the explanation (because their immediate reason, however erroneous, is discrimination). Finally, employers must make consistent employee decisions. For example, last year, a white employee was late. He was warned, but was not suspended. This year, a black employee was late. He was suspended for two days. It is quite likely that the different treatment arose because the employer did not remember how he responded to the same situation a year ago. This inconsistency, regardless of intent, may contribute to a charge of employment discrimination based on race.

I suggest that lawn care employers consider establishing the following prevention procedures:

Work Rules and Job Requirements. Employees want to know the rules and job requirements. It gives them boundaries within which they work and impresses employees with the belief that all employees will receive the same treatment. Additionally, written rules and job responsibilities reduce the possibility of inconsistent employer decisions, as they provide the lawn care employer and his supervisors with an established framework for making employment decisions.

Informal Complaint System. Employees may be disturbed about their equipment, a fellow employee, or a supervisor. The employees must know who they can speak to about these problems and how to get that individual's attention. Many employers, particularly those the same size as our typical lawn care company, state with pride that their employees are "part of the family." Even family members, like employees, need some outlet for complaints.

The complaint system may be an "open door" approach, but the employer must be sure to keep his door open. Alternatively, naming an individual as the one to see can be successful. In either case, the employee must trust the individual who he is encouraged to see. That individual should promptly respond to the employee, and explain why the employee's complaint was resolved in a particular way.

Informal complaint systems work toward preventing equal employment problems by identifying trouble areas in the early stages, before they lead to a discrimination charge. I have too often sat at the EEOC across the table from an employee who wanted to discuss a work-related problem with his employer. For some reason, the employee did not have confidence in his employer's interest or responsiveness. The employee filed a charge with the EEOC, and then his employer paid attention. Lawn care employers who are approachable and attentive to employee complaints should not be in that predicament.

Personnel Manual. The job descriptions, work rules and informal complaint system should be included in a personnel manual. The manual does not need to be long and complicated. It will be effective if it includes working hours, holidays, vacations, sick days, and other benefits and employment matters.

Additionally, the first page of the personnel manual should include some general language that the lawn care employer is an equal opportunity employer, and does not discriminate on the basis of race, color, religion, sex, handicap, age or national origin. Frankly, the EEOC views employee manuals favorably. Employers who have such manuals and equal employment language in the manual are perceived by the EEOC as employers who try to treat their employees in a non-discriminatory manner.

Job Description and Employment Application. Before filling out an employment application, an applicant should be given a job description that includes hours, duties and responsibilities. A salesman should know his job requirements, including expenses, hours and where he will sell. Production employees should know their conditions of work, such as long hours during the hot summer. Job descriptions are essential because individuals will eliminate themselves from consideration before filling out an employment application. This way, potentially dissatisfied employees do not even enter the work force. They have, through the process of self elimination, determined that this job is not for them.

Assuming that an individual wants to apply for a job, the application must solicit information for making a non-discriminatory employment decision. The use of objective factors is only part of the anti-discrimination requirement. The factors also must be *job-related*. That is, the factor of a college education, while objective, may be absolutely unrelated to one's ability to work as a general laborer.

An employment application should request only that information which is relevant to successfully performing the job. For

example, job-related questions for production personnel may include their past driving record, any drinking and driving related offenses, etc. Other job-related questions on an application include what duties were performed at the last job, the number of days absent or late at the last job, and why the applicant is applying for the production job. On that basis, the lawn care employer can distinguish between individuals based on objective, job-related factors.

Once the decision has been made to hire an individual, the personnel policy should be explained to him. The individual should sign a slip that is attached to the policy which states he has read the policy and understands its terms. At this point, the personnel file will include the employment application, tax withholding information, and the slip.

Three principles are basic to preventing equal employment problems. First, employment decisions must be documented. Second, employers should explain to employees why disciplinary actions were taken. Finally, employers must make consistent employee decisions.

Course of Employment. If an employee at any time during the course of the employment relationship violates an established work rule or does something which is inherently wrong (such as reporting to work drunk) documentation about this matter should be placed in the personnel file and a copy of the document given to the employee. Additionally, the employer should briefly explain the circumstances of this warning to the employee. In most cases, the employee is not hearing anything from the employer that is unexpected. However, the process of explaining to the employee and giving him a copy of the same materials to be included in the personnel file is another step to prevent further problems with that individual. At this point, the employee is fully informed of why the action was taken. The employee may ask questions or have some comments. The essential point is that the employee knows what has happened and is less likely to go to the EEOC, alleging that the action was taken on the basis of race or sex, since the employer explained the reasons for the particular action.

If an employee exceeds the job requirements, then this should also be noted in the personnel file and a copy given to the employee. This serves a similar purpose as written warnings: accurately reflecting in the personnel file the type of employee an individual has been. If it reaches a point where two employees are considered for a promotion, opening the personnel file should contribute to the decision of which employee to promote.

Subjective Qualities. There are certain

subjective characteristics, such as attitude and personality, which cannot be removed from jobs. A salesman is judged by the amount he sells, but is also judged according to those subjective factors. Also, an employee may have a poor attitude on the job which is not only affecting his production, but the production of those around him. Attitude is important to successfully performing jobs and is not eliminated from consideration, simply because it is subjective. The equal employment problems in the attitude and personality areas develop when employers give that as a reason for discipline or discharge without documentation identifying the problem and showing that it has been discussed with the employee.

Layoffs. We read daily that employers are laying off employees in response to current economic conditions. Hopefully, the lawn care industry will not follow this trend. Layoffs notoriously cause sex, race and age discrimination charges because laid off employees feel that they were better workers than those retained. Seniority is an objective factor for laying off employees, age is not. If employers do not base layoffs according to seniority, then the personnel files should explain the differences. Besides seniority, productivity and attendance are possible objective considerations for deciding which employees to lay off.

Termination. If the decision is made to terminate an employee, the employer's approach in the termination interview contributes to whether the employee either buys a newspaper and looks for another job in the want ad section or goes to the EEOC. The proper way to handle a termination interview is to take the time to frankly explain the reasons to the employee. At this point, the personnel file should sufficiently reflect the sensible employment decision to terminate an individual. Instead of explaining to the employee that he simply has not worked out, the employer should review with the employee the various factors which have contributed to the termination. By that time, the employee will have been given a copy of all the documentation relating to this decision, so really the employee will be prepared for the decision.

Employers who resist initiating the procedures discussed in this article frequently give two reasons. First, they have a record of no equal employment problems, so initiating these procedures is like telling a healthy individual to start exercising. Second, they explain that it takes too much time; they fear it will divert attention from primary business considerations. These assumptions are incorrect. Labor relations and equal employment are part of the business package, part of successful business management. Most employee personnel files will remain thin, reflecting a generally satisfactory work force. The prevention procedures will reduce the possibility of a dissatisfied employee affecting other employees or taking an employment problem from the lawn care employer's premises to the EEOC. Ultimately, the cost and effort of preventing equal employment problems will be substantially less than defending against an equal employment charge where prevention was ignored.

Guide to granular pesticides

by Milton Kageyama, O.M. Scott & Sons, Marysville, Ohio

The best turf pesticide in the world is of little value if it cannot be placed — safely and economically — where it can do the most good. It takes research to identify the most optimal compound, establish its effective dosage, determine application timing, and develop the best forms for application. Research at O.M. Scott & Sons, Marysville, Ohio, has shown that granular formulations are an effective product form for professional turf management.

One factor in the wide popularity of the granular pesticide system is that the product can be made in a variety of ways; virtually all formulations can be handled efficiently with

relatively standard equipment—from the manufacturer to the user. By selecting the right ingredient and manufacturing method, the pesticide formulator obtains control over such critical factors as granule size, chemical dilution (concentration), handling characteristics, release rate and phytotoxicity, which have a marked effect on the spectrum of activity against the target pest.

In general, there are four commonly used ways of making granular pesticides:

- Spraying the toxicant solution onto a carrier material.
- Blending a pesticide with a carrier and adhering the two together with a sticking agent.
- Agglomeration — making a dough by mixing pesticide,

carrier and other additives with a liquid, extruding the mass into pellets, and then drying and crushing the pellets into granules.

• Encapsulation — enclosing droplets of pesticide within a carrier.

There are various carrier materials usable in each granulation method, and some carriers are suitable for making granules by several techniques. Generally, the carrier material is neutral, that is, it has no turf function. Examples of non-fertilizer carriers include vermiculite, attapulgite clay, sand, limestone and ground corncobs. In some cases, however, a multi-action granule is employed. An example would be the granular pesticide that is formulated on a fertilizer carrier.

One basic aim of putting a turf chemical on a carrier at a low rate of active ingredients is to obtain even distribution over the

target area. This often calls for dilution of the chemical, and the extent of dilution is generally determined by considerable field trial work. Vermiculite is one example of a carrier that has a high absorptive capacity and allows a wide latitude of dilution.

Safety factors: A formulation containing a high percentage of the active ingredient is not necessarily the major objective. Highly toxic pesticides, for example, can be formulated as low concentrate granules to improve handling safety. Ethoprop in liquid form is quite toxic; however, there is a five percent active granule for turfgrass use that presents a reduced hazard to the user from an ingestion and skin contact standpoint.

Carrier composition has a bearing on the choice of carrier. Some carriers enhance the stability and shelf life of the finished product; others can actually hasten its decomposition. The acidity or alkalinity (pH) of the carrier is a characteristic that can influence the stability of the pesticide. Vermiculite, for example, can be weakly acidic (pH 6) or definitely basic (pH 9); limestone is strongly basic (pH 9 to pH 12). Within limits, additions of other chemicals can overcome certain pH/pesticide incompatibility problems.

On the site: Simply putting a pesticide on a compatible granule, of course, is not enough — it is essential to put the pesticide where it can do its job.

For turf care products, there are two main target sites: the foliage (of the grass or of the weed) and thatch/soil zone.

To generalize, pesticides for application to foliage (including fungicides, such as anilazine and chlorothalonil; herbicides 2,4-D; MCPP and DSMA) work best on relatively small, low-bulk granules that adhere well when applied to dew-moist foliage.

The granules must stay on the foliage until the active ingredient is released. It often takes considerable experimentation with sticking agents, carriers and additives, before the ideal formula is identified.

In the case of pesticides that are applied to the thatch/soil zone one of two modes of action is often involved: (a) direct contact with the pest (e.g., typical of pre-emergent herbicides such as bensulide, benfenin, or oxadiazon, a soil fungicide such as pentachloronitrobenzene, or a contact insecticide) and (b) uptake by plant roots and translocation throughout the plant (systemic fungicides such as benomyl and thiophanate-methyl).

The nature of the organism to be controlled in the thatch/soil zone and the mode of action of the pesticide must both be considered in preparing a pesticide formulation.

Granular formulations have been greatly improved in the last 30 years, and in many cases, they have proved to be the application method of choice. There is still room for improvement, and as newer pesticides are developed, a granular means of applying them will be developed that will prove popular, effective and economical.

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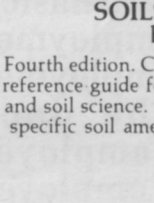
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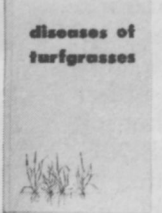
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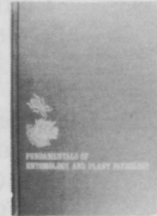
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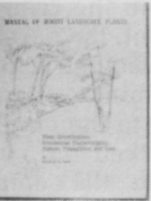
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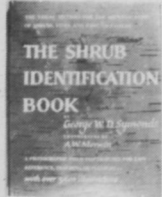
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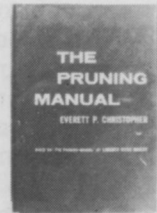
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Subcontracting specialty work

Many landscape firms have found it is frequently more efficient to subcontract specialty work. In a mail survey of National Landscape Association members regarding their subcontracting practices, 147 firms responded. Generally speaking, NLA members do not subcontract seeding and sodding; sometimes subcontract grading and stonework (patios, walks and walls); and usually subcontract installation of sprinkling systems, fences and pools. In the case of spraying trees, shrubs and lawns, it was a toss-up between "usually," "sometimes," and "never" subcontracting.

In all types of work subcontracted, except pools, most firms do charge a mark-up. In the case of seeding and sodding subcontracting, the practice of doing it yourself is by far most strongly established in the Northeast. In all regions except the South, the number of firms "usually" doing their own seeding and sodding exceeded the number who "sometimes" or "never" subcontract this work. In the South, however, the number "sometimes" subcontracting these jobs exceeded the number reporting either "never" or "usually."

In the case of subcontracting sprinkler systems, over one half responded they "usually" subcontract this work. "Never" was the next highest response with only 13 percent indicating "sometimes."

It was interesting that responses regarding subcontracting spraying were almost equally distributed among "never," "sometimes" and usually."

For seeding, 48 percent said they "never" subcontract, 34 percent said they "sometimes" subcontract, 18 percent said they "usually" subcontract, and 88 percent said they mark up the subcontract.

For sodding, 51 percent said "never," 32 percent said "sometimes," and 16 percent said "usually," and 89 percent said they mark up. For sprinkler systems, 31 percent said "never," 13 percent said "sometimes," 56 percent said "usually," and 77 percent mark up. For spraying, 39 percent said "never," 33 percent said "sometimes," and 28 percent said "usually," and 71 percent mark up.

MSMA from page 1

Rhode Island from DSMA (disodium methanearsonate) and MSMA. However, it was necessary to apply DSMA at a higher rate than MSMA for equal control. The Rhode Island tests were conducted by B.B. Hesseltine and J.A. Jagschitz.

Since information was not available in Georgia on performance of DSMA, Dr. Johnson conducted the study to determine rates of DSMA needed to equal MSMA for post-emergence crabgrass control in single and multiple year treatments and difference in tolerance of Kentucky bluegrass turf to these treatments.

DSMA and MSMA were each applied at 0.5, 1.0, 1.5, 2.0 and 3.0 pounds per acre in single and repeated applications for crabgrass control in Kentucky bluegrass turf. First treatments were applied around July 20, followed by a second treatment about 12 days later. All treatments were applied in 40 gallons water per acre.

Turf at one site was fertilized in the spring and fall with 10-10-10 fertilizer at the rate of 10 pounds per 1,000 square feet. Ammonium nitrate (33.5 percent N) was applied as needed to maintain optimum growing conditions at three pounds per 1,000 square feet.

Turf at a second site was managed the same as the surrounding turf (this was on a golf course).

The turf was mowed regularly at one-and-one-half inches to two inches at both locations.

Experiments were located in turf infested with crabgrass with populations of 75 percent or higher each year.

Weed control ratings were based on a scale of 0 to 100 where 90 to 100 represented excellent control, 80 to 89 good control, and below 80 as poor and unacceptable control. Turf appearance ratings were based on a scale of one to 10 where one equalled turf that was brown or dead and 10 a dark green color.

Dr. Johnson said there was

no benefit in crabgrass control from either MSMA or DSMA treatments applied to the same plots for two years at the first site when compared with single-year treatments. This indicates that these post-emergence treatments must be repeated each year for effective crabgrass control, he said.

Neither MSMA or DSMA has been shown to prevent crabgrass seed from germinating. Since the turf was infested with a severe crabgrass population, the seed in the soil will continue to germinate and treatments were needed for more than one year for effective control.

For excellent crabgrass control over the two-year period, it was necessary to apply MSMA at two pounds per acre and DSMA at three pounds per acre in each of two applications. DSMA controlled an average of 88 percent crabgrass when treated twice at the two pounds per acre rate. Two applications of DSMA at two pounds per acre controlled 97 percent of crabgrass in 1978, but the control was reduced below 90 percent from the treatment the following year.

This indicates that DSMA must be applied at a higher rate than MSMA for effective crabgrass control, Dr. Johnson said. None of the herbicides controlled crabgrass except when applied in two applications. This agrees with previous test results.

These results indicate that effective crabgrass control can be obtained with either DSMA or MSMA by selecting the correct rate of application for each chemical.

Dr. Johnson said the appearance of Kentucky bluegrass was similar from MSMA and DSMA treatments in 1978. The initial turf injury was more from all treatments in 1979 than the previous year. In all instances, MSMA injured the turf more than DSMA when each was applied at the same rate.

The higher turf injury in 1979 was probably related to higher temperatures immediately after treatment.

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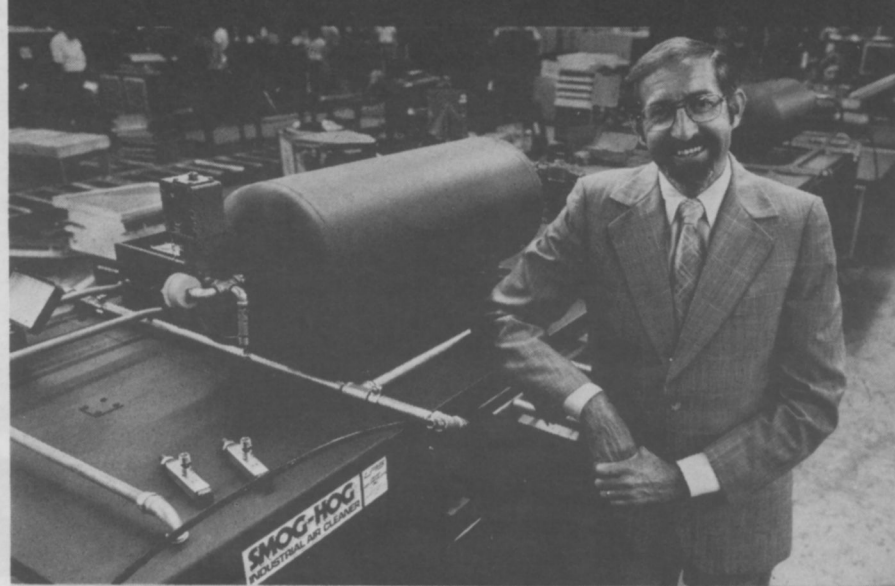
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ORNAMENTALS

Pruning, fertilization can salvage boxwoods

Many of the old and abandoned boxwood plantings throughout customer landscapes in Maryland and other states could be salvaged by ambitious pruning and proper fertilization, according to two extension horticulturists from the University of Maryland.

William Gould, Jr., extension landscape architecture specialist and assistant professor of horticulture, points out that boxwood is very receptive to shearing to almost any shape.

For old, overgrown boxwood shrubs found in many locations, Gould suggests that pruning into tree form may sometimes be advisable. He notes that these large shrubs are potentially very valuable and should be fairly transplantable with commercial

landscaping equipment since they are typically shallow-rooted.

For home landscaping purposes, boxwoods provide a great natural edging material for defining outdoor areas. They grow well in the shade of deep-rooted trees like oak, and they can be used in conjunction with trees to help give scale to the landscape design.

Since they are slow-growing, the young plants can be spaced close together. Then, when they begin to get crowded, you can dig out alternate shrubs and start a new planting at another location.

Too much acid fertilizer in recent years has slowed the growth of many boxwood plantings — already noted as slow growers — and made them susceptible to disease problems, says Dr. Francis R. Gouin, extension ornamentals specialist and professor of horticulture.

Because it is a broadleaf evergreen, boxwood is often lumped with such shrubs as azaleas, rhododendrons and mountain laurel, which are acid-loving plants. But unlike its broadleaf counterparts, boxwood is not of Oriental or native American origin, Dr. Gouin points out. It was brought to this country by early English settlers who found it thriving in their homeland where the soil contains rather high amounts of limestone.

Dr. Gouin recommends that lawn care businessmen dress their customer's boxwoods periodically with dolomitic limestone and plenty of nitrogen fertilizer. Also, if you have access to composted sewage sludge or barnyard manure, either material makes an ideal mulch for established boxwood plantings.

Both Dr. Gouin and Gould stress that insects may be a problem in old, abandoned plantings. Boxwood leaf miner and psyllid, both potentially serious pests, should be controlled by spraying if you are trying to rejuvenate old plantings, or starting new plants nearby.

When establishing a new planting, remember that boxwood grows best in well-drained, aerated soils with a pH between 6.5 and 7.2.

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Royal Coach buys Buckner Irrigation

Royal Coach Sprinklers, Inc., a Fresno, California-based irrigation equipment manufacturer, has purchased the Buckner Irrigation System Division from Johns-Manville, Denver, Colorado. The sale price was not announced.

"The two product lines will be consolidated into one brand, Royal Coach-Buckner, making the total package one of the most complete in the industry," James R. Coson, president of Royal Coach, said.

"We plan to keep all of the Buckner distributors who wish to join our firm. The addition of these firms to the Royal Coach distributors gives us excellent distribution and service throughout the United States and the world."

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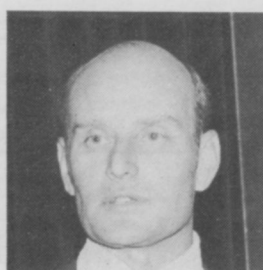
Rick White, Village Green Lawn Spraying, West Chicago, Ill.



2.

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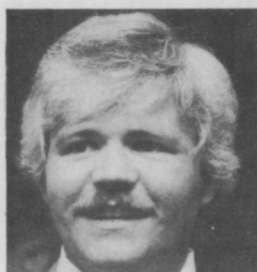
Tom Brune, Atwood Lawn Spray, Sterling Heights, Mich.



3.

"Conferences, clinics and workshops aimed at continuing management education for today's business climate and conditions relating to the lawn care industry."

Jim Kelly, Keystone Lawn Spray, Wayne, Pa.



4.

"Government relations . . . PLCAA, as a spokesman for the entire industry, can present our interests with greater force and effectiveness than can an individual company. Government legislation is going to affect our industry more and more, and we have to make our needs known."

Ronnie Zwiebel, Chem-Care Lawn Service, Birmingham, Ala.



5.

"Specially designed training programs for sales, service and supervisory employees of member firms to teach the fundamentals of business, customer relations, lawn care technology and the importance of economics to business success."

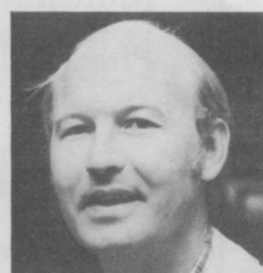
Gordon Ober, Davey Lawnscape Service, Kent, Ohio



6.

"Establishment of acceptable technical, ethical and safety standards to guide existing lawn care businesses and newcomers to the industry."

Dr. Paul Schnare, Atkins Lawn Care, Columbia, Mo.



7.

"Association funding for the specific research and development we need for the lawn care industry."

Frank Stevens, Pro-Lawn-Plus, Baltimore, Md.



8.

"Surveys to enable each PLCAA member company to compare its performance against the average performance of all member companies and to compare business performance factors, such as sales volume, profit, investment and growth."

Marty Erbaugh, Lawnmark Associates, Peninsula, Ohio



These are only some of the things the lawn care industry as a whole can accomplish through the Professional Lawn Care Association of America. Ours is a young industry, we need to be recognized as professionals and the experts we are. We need to get the word out about the lawn care industry to potential

customers, suppliers to the industry and to government at the local, state and federal level. We can't do it alone. We need the support of the entire lawn care industry if we are to realize our goals.



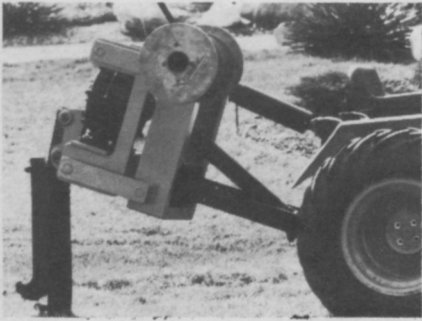
Tell me more.

The Professional Lawn Care Association is off and running. Together we can make things happen. Grow with PLCAA. Complete this application for further information and mail it today.

NAME _____ TITLE _____
COMPANY _____
STREET _____
CITY _____ STATE _____ ZIP _____

Mail to:
PLCAA
Suite 1717
435 N. Michigan Ave.
Chicago, IL 60611

PRODUCTS



Portable plow hooks up to most field tractors

The Stover SS 24, from Stover Manufacturing Co., makes possible fast underground installation of irrigation systems without trenching. This cost-practical vibratory plow system will cut up to 24 inches deep, but is completely portable and adapts quickly to many types of standard tractors having a Category I

three-point hitch and a power take off speed of 750 rpm or greater.

One person operating the SS 24 can lay down up to 12,000 feet per hour of pipe depending on soil conditions, the manufacturer claims. The vibratory plow blade is raised and lowered hydraulically using controls on the tractor and power to the shaker is drawn from the power take off of the pulling unit. The angled blades cut deep consistently, and a variety of feed and pull-in blades can be ordered and easily changed to handle most needs.

Write 902 on reader service card

New pH computer

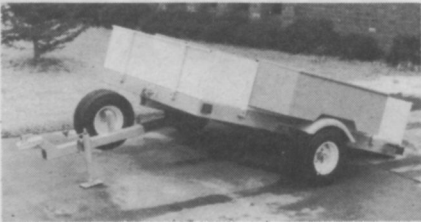
The pH computer, available from Bill Lyons, quickly and accurately determines the pH of thatch (trouble zone) and the soil laterally at each 1/4- to 1/2-inch zone. This pocket-size computer

gives accurate readings in less than one minute and comes with a five-color Turf Manager's pH chart.

Write 902 on reader service card

Load without lifts

A new model 40 Versa-Haul one ton trailer is now available from VJ Pausch Industries, Inc. This trailer features an all-steel 5- by 8-foot bed, which tilts backward



forming a ramp for easy loading and unloading without the need for hydraulic lifts. The basic trailer is a flat-bed with integral tie-down points, mounted on a

tubular steel axle with machined spindle for tapered roller bearings with six ply tires, 5 lug wheels.

Optional features include formed steel carrier compartments for tools and accessories, a swivel-mounted tongue parking jack, "buddy cup" bearing lubricator, a spare wheel and tire.

Write 901 on reader service card

Preventive lawn care with new turf fungicide

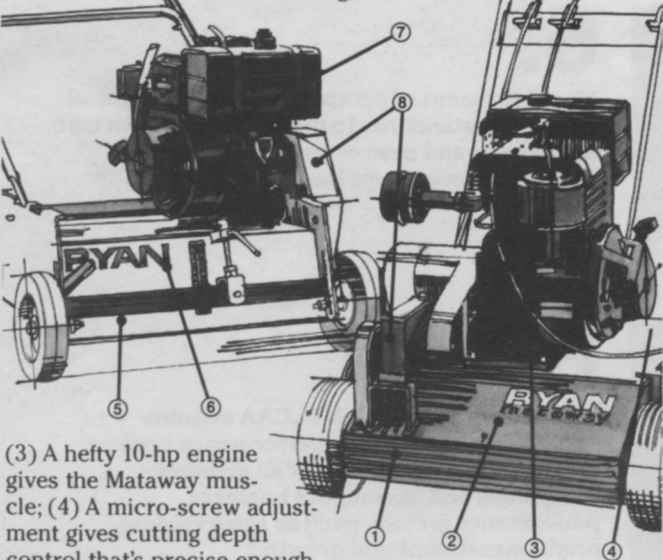
A new lawn fungicide product, ProTurf Fungicide VI, has been introduced by O. M. Scott & Sons. Designed to prevent and control dollar spot, brown patch, leaf spot and red leaf spot, the fungicide also controls Fusarium patch and is effective even on the benzimidazole-tolerant strain of dollar spot.

Nobody else builds power rakes like Ryan.

For more than 18 years, the Ryan Mataway® and Ren-O-Thin® power rakes have set increasing standards of toughness, durability and performance. Here's why.

(1) The Mataway's self-propelled upmilling action and 19" swath lets you cover up to 10,000 sq. ft. per hour;

(2) Snap-in blade sets offer normal, wide or narrow slicing;



(3) A hefty 10-hp engine gives the Mataway muscle; (4) A micro-screw adjustment gives cutting depth control that's precise enough to deep slice greens accurately; (5) The Ren-O-Thin cuts a wide 18" swath; (6) A floating front axle follows the contours of your turf; (7) Choose the gutsy

7-hp Ren-O-Thin IV engine, or the economical 5-hp Ren-O-Thin III; (8) All Ryan power rakes are built to deflect debris from the operator as they power rake.

With operating costs constantly rising, you need to get the most out of every hour's wage you pay. That takes a dependable crew, using dependable equipment.

Like the Ryan Mataway and Ren-O-Thin.

Ask your Ryan dealer for a demonstration, and see for yourself how we build power rakes.

80-CUR-4

Mataway & Ren-O-Thin Power Rakes



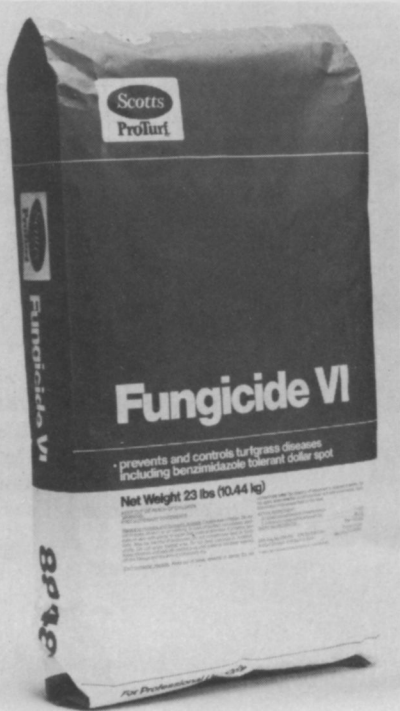
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Performance

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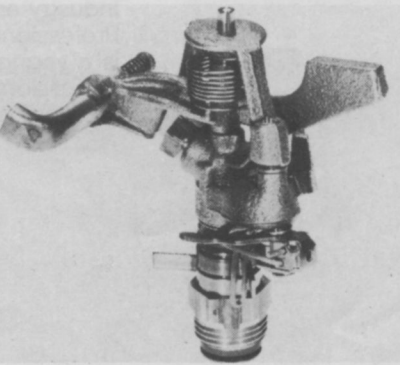


For best results, the fungicide is recommended to be applied as a preventive to the development and spread of these fungus diseases, as well as the thinning of turf frequently connected with them.

Write 910 on reader service card

Sprinkler directs water only where you need it

Weather Tec. Corp. introduces its new 15-50 controlled impact spray arm. The new arm directs undesirable "splash" only to



areas where you need it, eliminating the problem of slippery sidewalks, discolored fences and water stained windows.

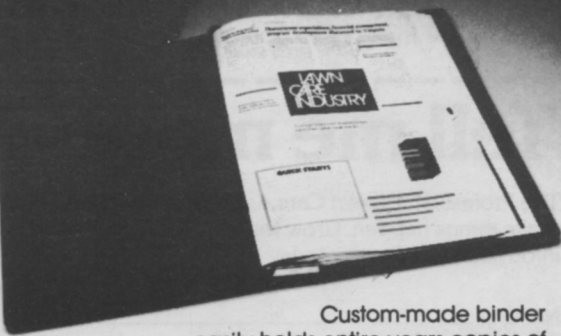
The anti-backsplash sprinkler can be used either in full circle or part circle operation.

Write 903 on reader service card

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BINDERS**

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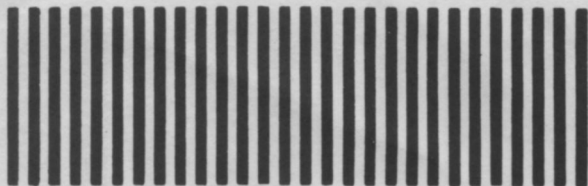
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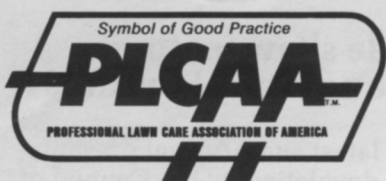
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ARE YOU PLANNING TO EXHIBIT AT THE FIRST ANNUAL CONVENTION AND TRADE SHOW OF THE PROFESSIONAL LAWN CARE ASSOCIATION OF AMERICA?

**Commonwealth
Convention Center
Louisville, Kentucky
November 12-14, 1980**



“LAWN CARE BUSINESS MANAGEMENT IN THE 80's”

Here's why you should exhibit:

- Buyers from all parts of the country will be there. You will get **national** exposure.
- You will see them at the time they are **making decisions** on orders for 1981.
- Buyers can **see** what they are buying.
- This will be the **first** major exhibit of the season.
- You can show your equipment **in operation**, out of doors, on November 14.
- You get **one-on-one** sales contact with the industry's decision makers.
- You get the opportunity to view the “**competition**” drawn from many areas of the industry:

Mowing equipment, liquid application equipment, dry application equipment, pesticides, fertilizers, engines—diesel and gas, seed supplies, office equipment, computer software suppliers, direct mail, allied equipment suppliers, printing firms, tractors, trailers, merchandising aids.

You will be participating in a major activity of the
first national association devoted to the needs of the lawn care industry!

A prospectus has been mailed to
potential exhibitors. If you haven't
received one, write now to
Association headquarters. ➡

Professional Lawn Care Association of America
435 North Michigan Avenue, Suite 1717
Chicago, Illinois 60611

YES, I am interested in exhibiting at the First Annual Convention and Trade Show.
Please send me a copy of your prospectus, with complete exhibitor information.

Signed _____

Company _____

Address _____

City/State/Zip _____

CLASSIFIED

When answering ads where box number only is given, please address as follows: Box number, % LAWN CARE INDUSTRY, Dorothy Lowe, Box 6951, Cleveland, Ohio 44101.
Rates: 35¢ a word for line ads, 65¢ a word for display ads. Box numbers add \$1 for mailing. All classified ads must be received by the publisher before the 10th of the month preceding publication and be accompanied by cash or money order covering full payment.
Mail ad copy to Dorothy Lowe, LAWN CARE INDUSTRY, Box 6951, Cleveland, Ohio 44101.

USED EQUIPMENT

MUST SELL—1979 750 gallon spray truck, compartmentalized tank, 100 G.P.M. pump, electric hose reel, like new, \$12,000.00 or assume lease. Phone 216 951-5295.

FOR SALE: Three spray trucks, 1976 and 1977 Chevy. C-60's, completely equipped with 1200 gallon steel tank, mechanical agitation, Bean 20-20 pump, Hannay electric reel, hose, etc. Complete units, excellent condition, ready for immediate use. Will sell separate or special combined price. Phone 502 897-5201 day or 502 896-0879 nights.

HELP WANTED

MANAGEMENT OPPORTUNITY — Fast growing, Michigan based firm seeking a creative, self-starting seasoned horticulturalist to assume responsibility for development and implementation of tree and shrub care division. Related product and equipment knowledge imperative. Excellent salary and career growth potential. Send resume and salary history in confidence to Box 21, Lawn Care, Box 6951, Cleveland, Ohio 44101.

IMMEDIATE OPENING for 2 experienced persons devoted to the green industry and who take pride in doing a quality job. Salaries commensurate with experience. Spray foreman or forewoman to manage our spray division. Must either have a degree in horticulture or 5 years experience in diagnosis of insects and diseases of ornamentals. Mechanical knowledge required to be responsible for 3-4 sprayers and trucks. Landscape foreman or forewoman to take full responsibility for residential landscapes. Plant knowledge required. Must have an outgoing personality to deal with homeowners. 5 years working experience necessary. Dennis Anderson & Wife, Inc., 312 438-4770, P.O. Box 702, Barrington, IL 60010.

ADVERTISING SALES POSITION AVAILABLE with a growing specialty agri. magazine, Chicago territory. Requires individual with 1 to 2 years chemical and equipment sales experience in the agri. or specialty agri. market at the distributors level. Ad. space sales experience desirable but not required. Salary plus commission, all expenses, a strong benefit program and plenty of room to advance. Reply to Box 20, Lawn Care, Box 6951, Cleveland, Ohio 44101.

WANTED TO BUY

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

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

FOR SALE

LAWN MAINTENANCE BUSINESS, located in beautiful central Virginia, unlimited potential, owner desires to

relocate. Write Box 22, Lawn Care Industry, Box 6951, Cleveland, Ohio 44101.

SPRAYERS—FACTORY DIRECT, professional gardeners, turf applicators, proven dependability, unconditionally guaranteed. Black River Sprayers, Box 824, Andrews, S.C. 29510.

CHICAGO AREA lawn spraying service—Over 1500 established accounts. Three fully-equipped 1981 trucks. All brand new spray equipment. All brand new office equipment and furnishings. Complete stock of warehouse supplies and parts. \$179,000. Write: Box 23, Lawn Care, Box 6951, Cleveland, Ohio 44101.

MISCELLANEOUS

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

GREEN PRO EXECUTIVE NEWS-LETTER... designed for you if you are serious about your career in the Greens Industry... with an eye on success, professionalism and profits... and that's the bottom line! A weekly newsletter, a store house of immediately usable information delivered to your mailbox each week. Advice, ideas, customer relations... many vital subjects designed for those in our industry who want to get ahead... stay there! Write to Green Pro Executive Newsletter, 380 S. Franklin St., Hempstead, New York 11550 or call 516 538-6444 for information and a free copy.

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Slide show features tree appraisal formulas

The latest audio/visual presentation developed by the Council of Tree and Landscape Appraisers (CTLA) is helping lawn care professionals understand how trees and other landscape plants are appraised, and what to do to recapture their values if they are damaged or destroyed by casualty events.

The Tree Casualty Puzzle is a 15 minute slide-and-tape program designed for professional groups as well as interested service and garden clubs.

The program, consisting of tape-recorded narration and 60 35mm slides, is available on loan at a cost of \$15. Purchase price is \$75. Orders should be addressed to The Council of Tree and Landscape Appraisers, 232 Southern Building, Washington, D.C. 20005.



Control 15 major lawn pests with versatile SEVIN® carbaryl insecticide.

They nip, munch, burrow and bite. As sure as grass is green, lawn pests will try to make life miserable.

You can minimize the misery with SEVIN carbaryl insecticide.

STOP! ALL PESTICIDES CAN BE HARMFUL TO HEALTH AND THE ENVIRONMENT IF MISUSED. READ THE LABEL CAREFULLY AND USE ONLY AS DIRECTED.

And protect lawns from as many as 15 different problem pests.

Both the most common ones and the worst: ants, bluegrass billbugs, chiggers, chinch bugs, cutworms, earwigs, European chafer, fall armyworm, fleas, green June beetle, leafhoppers,

millipedes, mosquitoes, sod webworms (lawn moths) and ticks.

Broad registration only starts the list of SEVIN benefits.

It's also compatible with many other commonly used insecticides, miticides, fungicides and foliar nutrients. And residents can resume using the grounds or yard as soon as the spray dries. There's a choice of



Write 110 on reader service card



The results are in for our 1980 LAWN CARE INDUSTRY Reader Profile and Purchase Decision Study. This once-a-year major study was conducted by market research manager Clarence Arnold. He said of the survey:

"The purpose of the mail survey was to approximate the readership, market size and market structure of the industry. Our measurements included 1979 purchases of

chemicals and equipment, along with income, profit and employment data. Projections are based on mean responses and circulation figures. Coefficients of variation of mean responses are available upon request.

The names for the sample upon which this report is built were chosen by an nth name selection from all subscribers to LAWN CARE INDUSTRY. A letter and questionnaire, and a dollar bill incentive were mailed April 16. Five days later a follow-up post card was mailed. A follow-up letter and questionnaire were mailed to non-respondents only on May 5. Returns were closed May 26 with 53.6 percent of the original 500 contacts yielding a usable response."

On page 1 of this issue, in the lower right-hand corner, you see the first information we have published from this report — that the average reader of LAWN CARE INDUSTRY grossed more than \$117,000 in 1979. This figure is 16 percent over what readers said they grossed in 1978.

Some other interesting information from the survey, which we will publish in upcoming issues deals with number of accounts our readers deal with (4.3 million across the nation), before-tax profit on these accounts (average of \$16,442), how much our readers expect their gross to increase by the end of this year (17 percent), how much money was spent in 1979 for purchases of seed, chemicals and equipment, where purchases are made (locally, regionally or nationally), number of employees, and how advertising dollars are spent.

We will be bringing this information to you in the magazine. If you can't wait to read it there, drop me a line, and I'll send you a copy of the report.

Bob Earley

PRODUCTION

Fertilizer usage up five percent

Fertilizer movement from U.S. producers showed an overall increase of five percent during the 11-month period of July 1979 to May 1980, compared to the same period a year ago, according to a report released last month by The Fertilizer Institute.

"A fertilizer year is exactly that — 12 months — and the heavy fall movement offset a sluggish spring movement," said Ed Wheeler of the Institute. "While May 1980 domestic disappearance was 18 percent below the same month a year ago, the month of May was a record setter.

SURVEY—(from page 1)

market research manager Clarence Arnold.

Respondents were asked the question: "What were your gross receipts in 1979 for chemical application and mowing/maintenance services?"

According to Arnold, 39.9 percent of the readers have both chemical application and mowing/maintenance accounts. Also, 21.6 percent have only mowing/maintenance accounts and 14.9 percent have only chemical application accounts.

Total projections of dollar figures to LAWN CARE INDUSTRY readership are based upon these percentages.

Other areas surveyed in this report by Arnold were: numbers and kinds of accounts, annual receipts, profits and expectations, purchases and purchasing responsibility, time of purchasing steps, places of purchase, advertisements of lawn care businesses, employment, pass-along readership.

Copies of the full report are available from: Bob Earley, editor/associate publisher, LAWN CARE INDUSTRY, 9800 Detroit Ave., Cleveland, OH 44102, 216-651-5500. Specific questions about the survey should be directed to Arnold at the same address and phone.



four formulations — sprayable, wettable powder, flowables and SEVIMOL® 4, a liquid blend of SEVIN and molasses. Granules, dusts and baits are also available for certain specialized uses. Plus, SEVIN isn't harsh on the environment. It is bio-

degradable; and when compared with other insecticides, it ranks low in toxicity to people, animals, birds and fish.

So it's probably no surprise to hear that SEVIN carbaryl is one of the largest selling insecticides in the United States today.

For more information about SEVIN contact your pesticide supplier or Union Carbide at the address below.

Make SEVIN carbaryl insecticide your answer to pest control too.

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SEVIN and SEVIMOL are registered trademarks of Union Carbide Corporation for carbaryl insecticide. UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC., 7825 Baymeadows Way, Jacksonville, FL 32216





"After 56 years in landscaping we've had some unusual requests. But never before had we been asked to landscape an exposed roof in the middle of a city.

"The roof was on the third story of the Renaissance Center in downtown Detroit. All the materials had to be lifted by crane. We had to create an artificial ground. We put over 1,000 tons of stone down . . . covered that with a matted fiber and topped it with 6" of topsoil. Then we laid almost 3 acres of sod up here. Of course a good irrigation system had to be installed.

"When we chose the grasses for the sod, there were several things we were looking for: First it had to be a great-looking grass. Then it had to be tough enough to survive under the artificial conditions. And we knew we'd have to keep good color, so it had to be disease resistant even with heavy fertilization.

"We chose to use Baron in our mix. And it's given us all we expected and more. We never expected this turf to be taking the abuse it is. Jogging, dancing, concerts, you name it. And since we maintain these grounds too, it's still up to us to keep it looking good. It's not easy under these adverse conditions, but it's a lot easier with Baron."



"baron KENTUCKY BLUEGRASS GAVE US EVEN MORE THAN WE EXPECTED ON THE ROOF OF DETROIT'S RENAISSANCE CENTER"

Melanie Reinhold,
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