

Lawn Institute re-elects Jacklin as president

Doyle Jacklin, Jacklin Seed Co., Post Falls, Idaho, was re-elected president of the Lawn Institute at its recent meeting in Kansas City.

Also re-elected were: Gordon Miller, vice president; Robert Russell, secretary-treasurer. Dr. Gerald Pepin was re-appointed chairman of the Variety Review Board. Members are Richard Bailey, Howard Kaerwer and Peter Loft.

Elected to the board of directors were: Ross Allmon, Hercules, Inc.; Richard Bailey, Merion Bluegrass Association; Robert Buker, FFR Cooperative; James Carnes, International Seeds; Gabe Eros, OSECO Limited; James Jenks, Jenks-White Seed Co.; Ben Klugman, Twin City Seed; Robert Peterson, E. F. Burlingham & Sons; Norman Rothwell, Rothwell Seeds; Robert Wetsel, Wetsel Seed Co.; Kent Wiley, Pickseed West, Inc.; and John Zajac, Garfield Williamson.

Directors appointed to the board were: Chase Cornelius, Northrup, King & Co.; Jacklin; Loft; Ed Mangelsdorf, Mangelsdorf Seed; Miller; and E. R. Townsend, Whitney-Dickinson Seed.

EDUCATION

Number of turf grads is up 74 percent

The number of graduating turfgrass management students increased from 466 in 1976 to 811 last year, according to a recent survey by Palmer Maples, Jr., director of education for the Golf Course Superintendents Association of America, Lawrence, Kansas.

Many of these graduates took jobs in the lawn care industry. Interviews with lawn care businessmen across the country have indicated that lawn care com-

ChemLawn files suit against ABC network for misrepresentation on '20-20' TV show

ChemLawn Corp., Columbus, Ohio, has entered into litigation against the ABC national television network for what the company claims was a misrepresentation during an early August airing of the network's "20-20" newsmagazine format-television show.

Chemlawn is protesting the show's "inference" that the chemical 2,4,5-T was being sprayed on lawns by the company. The federal Environmental Protection Agency has said that 2,4,5-T has the potential to cause birth defects in humans.

Although the show did not mention the company by name, a Chemlawn truck was shown early in the telecast as a lead-in to the report. The bulk of the show dealt with agricultural and other uses of the chemical.

John Wright, ChemLawn vice president, told LAWN CARE INDUSTRY: "We are into litigation with ABC, and are limited as to what we can say about the matter on advice from corporate counsel."

Wright did say that ChemLawn has received numerous complaints from customers

around the country who saw the broadcast. He said that most complaints were resolved after ChemLawn employees explained the facts of the situation to the customer.

The herbicide 2,4,5-T has been banned from home lawn use since the early 1970's because of its potential for causing birth defects. Wright said that the company "of course does not use the herbicide because it is not labelled for home lawn use."

"We don't believe that we were singled out by ABC on this matter, we just happened to be the truck that was shown in the telecast," he said.

Dick Deering, president of Perf-a-Lawn, New Carlisle, Ohio, said that local television stations came to his company-owned outlets in Nashville and Louisville asking for statements saying that Perf-a-Lawn was not spraying 2,4,5-T on customer lawns in those cities. The request came soon after the "20-20" broadcast aired.

ELECTIONS

Toro Co.'s McLaughlin elected OPEI president

David T. McLaughlin, chairman and chief executive officer of Toro Co., Minneapolis, was recently elected president of the Outdoor Power Equipment Institute (OPEI).

Anthony A. Malizia was elected president, and Stanley J. Byers was elected secretary-treasurer.

Malizia is president of McDonough Power Equipment, Inc., McDonough, Ga. The company recently purchased the Massey-Ferguson lawn and garden tractor line from the Des Moines, Iowa manufacturer.

Byers is president of Bunton Co., Louisville, Kentucky. Elections were held at the OPEI's 26th annual meeting.

QUICK STARTS

Larger spray truck saves two hours a day	page 4
Managing turf in shaded areas	page 8
Picking up accounts with good equipment	page 10
Penn State researches sulfur-coated urea	page 10
Getting new customers by phone	page 20
Spray tanks, pumps, hoses, reels, guns	page 18
MEMOS	2
COST CUTTINGS	4
NEWSMAKERS	5
MEETING DATES	6
TOOLS, TIPS & TECHNIQUES	8
MONEYWISE	10
MARKETING IDEA FILE	20
PRODUCTS	20

panies are hiring more and more turf graduates.

The survey showed that the largest increase in graduates occurred in associate turf degrees. In 1977, 229 students graduated with the two-year degree, compared to 63 in 1976. Bachelor of science degrees were earned by 273 students in 1977, compared to only 239 in 1976.

Of the 1977 graduates, 58 took jobs in the lawn care industry. A total of 201 took jobs as assistant golf course superintendents, 73

became superintendents and 81 took non-superintendent jobs on golf courses.

Other choices were the nursery industry (73), parks (47) and institutional grounds (23). A few students entered the chemical industry, sod industry, university extension, research or teaching, fertilizer and seed industries and cemeteries.

In 1976, 56 of the total graduates chose jobs in the lawn care industry. In 1976, 172 of the graduates took jobs as assistant golf course superintendents, 67 became superintendents, and 73 took other positions on golf courses. The rest went to parks (32), nurseries (31) and others.

LCI SURVEY

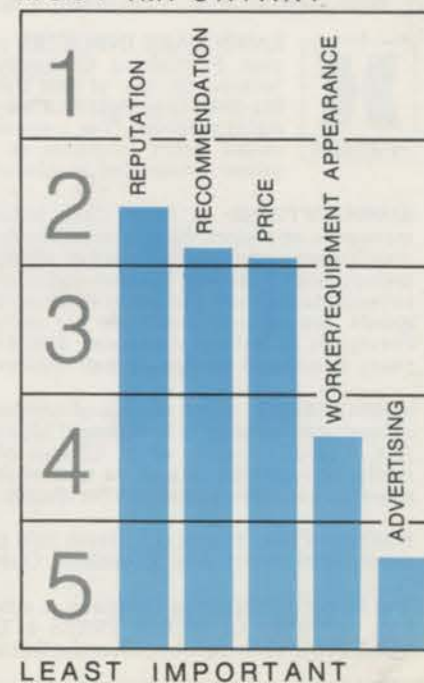
Consumers say company reputation most important

In a recent survey conducted by LAWN CARE INDUSTRY, homeowners rated a lawn care company's reputation as the most important quality they considered when hiring a company.

Other factors rated in order of importance were: a personal recommendation from a friend or neighbor, second-most important; next important was price; next important was appearance of the workers and appearance company equipment. Least important was advertising.

The survey was based on an 8.4 percent response rate to 1,000 questionnaires mailed in July.

MOST IMPORTANT



ustry in New York, continuing series of in-lawn care business potential lawn care re and how they go

Kansas' Westheffer forms turf division

Westheffer Co., Inc., Lawrence, Kansas-based manufacturer and distributor of agricultural chemical equipment, has announced the formation of Westheffer Turf Division.

The new division will specialize in products for the commercial lawn care industry. This will include the design and manufacture of lawn care application units, as well as a complete line of related equipment, according to company president Don Westheffer.

Wayne Jones has joined the division as sales representative. He is a plant and soil science graduate of Southwestern Missouri State College and will represent the firm in the Midwest.

2, Box 402, Post Falls, Idaho 83854, (208) 773-7581.

The company's move into a new, 6,000-square foot office facility on a 22-acre site is phase four of a long-range corporate expansion plan, general manager Duane Jacklin told LAWN CARE INDUSTRY. The offices are part of a complex of warehouse and seed processing equipment and maintenance buildings designed to handle a large percentage of the world's supply of proprietary Kentucky bluegrass seed.

"The location is more centrally located relative to the company's farms and those of our growers in northern Idaho," he said. In addition to the new office space, additional warehousing and processing buildings have been built and include 113,000 square feet of warehouse space.

MOWERS

J.B. Foote Foundry plans major expansion

A major expansion in excess of 37,500 square feet to the J.B. Foote Foundry transmission plant has been announced by Jack Fearn, president of the Fredericktown, Ohio firm.

Foote manufactures transmissions and transaxles for the lawn mower industry, as well as a line of concrete mixers and grey iron castings.

MEMOS

The "median" house: The national median price of a new house blasted through the \$50,000 barrier this year, and with homeowners investing more money in their homes, they are also investing more money in taking care of them — like using lawn care services.

In the first quarter of this year the median house price was \$54,000 and rising; that compares with \$48,700 for all of 1977, and just shy of double 1972's \$27,600. The median family income has not gone up in tandem. From 1972 to 1977 it rose only about 50 percent. But where there's a will to buy a house, there's usually a way. The most common ways have been for both spouses to work or for the family budget to be reapportioned. In 1960, the typical family spent 35 percent of its after-tax income on mortgage payments or rent, heating and home maintenance costs — including lawn care. More recently it has been spending 41 percent.

The median house in San Francisco is \$79,950, with a 6,500-square-foot lot, according to statistics released by the National Association of Home Builders. In Phoenix, the median house costs \$60,700, with a 10,000-square-foot lot. In Minneapolis, the median house costs \$57,900, with a 12,150-square-foot lot. In Philadelphia, it carries a \$51,990 price tag and offers a 7,500-square-foot lot. In Washington, D.C., the median house costs \$66,585 and has a 12,000-square-foot lot.

Franchising: "There's a lot of green to be made making people's thumbs green," goes a recent ad in the business section of the Sunday New York Times. The franchiser is Lawn Doctor, Matawan, N.J., and it says it is "growing faster than people's grass in 24 states." The ad goes on to say:

"Every homeowner is a potential source of green. Every franchise has unlimited income potential. And everybody's talking about our great TV campaign. There are still lush, green franchises left in New York, New Jersey and Connecticut."

Factory pay: Just to let you know what you are up against when it comes to competing for top-notch help, the Labor Department recently reported that the average hourly pay of factory workers rose in June to \$6.06. This is up from a revised \$6.02 for the previous month.

Organic bug killer: A recipe for an organic bug killer was published in a recent issue of *Grower Talks*. Robert D. Rodgers, a 72-year-old gentleman who has been working with plants of all kinds for 55 years says:

Grind up 24 ounces by weight of garlic. Mix in glass or plastic container with 16 teaspoons of mineral oil. Let soak for 24 hours. Stir and mash to be sure the garlic and oil is well mixed. After the oil and garlic have soaked for 24 hours, shave off two ounces by weight of Palmolive or Ivory soap. Dissolve in one gallon of warm water. Mix garlic and oil with soap water and leave for a few hours. Stir well and drain through cloth so mix will not clog up sprayer. When ready to use, add one part mixture to 10 parts water.

Don't take chances: The U.S. Consumer Product Safety Commission estimates that last year about 65,000 people received hospital emergency room treatment for injuries associated with power lawn mowers and tractors. Another 10,000 were injured by powered hedge trimmers.

Although many of these injuries are obviously consumer injuries, many were also suffered by lawn care company employees. Mike Beard, president of AAA Lawn Service, Ballwin, Mo. was laid up for six months when he got careless and a mower ran over his leg. He now stresses safety with all of his employees, just as all lawn care businessmen should.

New Jacobsen ID program: Distribution trucks of the Jacobsen Division, of Textron Inc., Racine, Wis. are rolling out across the country with bright new graphics, launching another phase of the identity program for the Jacobsen Turf Products Division. Silhouetted against the all-white sides of the trucks is a strip of green turf leading to a landscape setting in which a bright orange Jacobsen mowing tractor is positioned. The white also provides a backdrop for new and bolder treatment of the Jacobsen logo. The words "turf equipment" appear in black within the green area. The landscape design is repeated across the rear of the truck.

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ALCA meeting features equipment demonstration

The associated Landscape Contractors of America (ALCA) has announced its 1979 trade exhibit, to be held at the Association's 16th annual meeting in Houston Feb. 4-9.

The trade exhibit will feature a full day of exhibit hall displays, and will feature — the following morning — an equipment demonstration program.

The exhibit and annual meeting will be at the Galleria Plaza Hotel, and equipment demonstration will be in a bare earth field immediately adjacent to the hotel.

Last year's ALCA meeting drew almost 700 lawn care businessmen, landscape maintenance

professionals and other landscape professionals to Orlando, Fla.

For further information, contact: ALCA, 1750 Old Meadow Road, McLean, Va. 22102.

REFERENCE

Landscape Data Manual is now available

The third edition of the Landscape Data Manual, published by the California Landscape Contractors Association, is now available.

The book contains 160 pages with over 200 charts and tables of weights, densities, coverages, compaction, spacing and other physical aspects of a landscape materials such as soils, aggregates, lumbers, masonry, plant materials and more.

Copies priced at \$11 are available through: CLCA 6252 E. Telegraph Rd., Los Angeles, Calif. 90040.

SEED PRICES

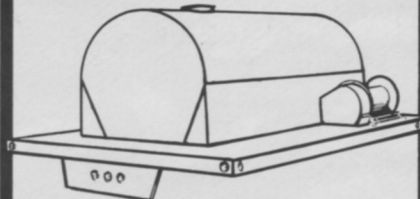
Ryegrass prices down, bluegrass, fescue up

Retail prices for 1978 sales of annual ryegrass seed were down nine percent from 1977 prices, according to figures released recently by the Crop Reporting Board of the U.S. Department of Agriculture.

For the comparison period of April 15, 1978 to April 15, 1977, Kentucky bluegrass seed prices were up 12 percent, and prices for tall fescue were up 31 percent.

April 15 figures showed the price of annual ryegrass seed at \$32 per 100 pounds, down from \$35 last year; Kentucky bluegrass prices at \$1.65 per pound, up from \$1.47 last year; and prices for tall fescue \$62 per 100 pounds, up from \$47.50 last year.

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COST CUTTINGS

Larger spray truck saves two hours a day



Don Keller, owner of Keller's Turf and Shrub Care in Independence, Mo. figures that he saves at least two hours a day since he went to a spray tank truck three times the size of what he used last year.

Last year he was using 200- and 300-gallon trucks to service his 500 spray customers. This year he went to a unit with a 1,350-gallon tank.

"It was surprising when I started to keep track of the travel time and down time," Keller told LAWN CARE INDUSTRY recently. "To fill up a 300-gallon tank takes about 20 minutes; we were doing this three times a day. Then when you figure in the time it took to leave a neighborhood and come back to the shop, that is even more time added on." He also says that he was running two-man crews because he didn't have any power reels on the smaller tank trucks.

"You add it all up, and I figure that it saves me two hours a day over the time it took us last year," he said. He says that his crew can make the tank last all day — pumping between 1,100 and 1,200 gallons — unless the jobs are very big and close together.

Keller also feels that the big truck is also more impressive to his customers, and says that it is better advertising. "People are used to seeing the big truck, but they know who we are because we have our trucks and equipment all painted a distinctive dark green," he said. "It costs a little more when we order them, but it is really worth it because it differentiates us from all of the white trucks with green letters."

He is hoping to add another truck next year, and cut down on his mowing and other maintenance work. At present, he will not take on any mowing jobs unless they also get the spray contract. "We get the blame for all of the problems, because our trucks are there more often," he said, "so we might as well be spraying them too."

ASSOCIATIONS

Two landscape groups announce affiliation

The American Association of Landscape Contractors (AALC) has established formal affiliation with the Associated Landscape Contractors of America (ALCA) by becoming a sponsoring member of the national group.

The New York City group be-

comes the fifth such group to affiliate with ALCA, following California, Illinois, Colorado and metropolitan Washington, D.C.

Under the affiliation agreement, all ALCA publications will be sent to AALC for reproduction and distribution to AALC members. Additionally, AALC members will be able to attend all ALCA meetings and seminars at the member fee, and will be able to purchase additional copies of ALCA publications at member prices.

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NEWSMAKERS

R. W. Collins, Inc., a lawn spraying and pest control company with offices throughout Florida and in North Carolina has announced placement of seven manager trainees in Florida. Jim Brosnan has been assigned to the company's St. Petersburg branch. He was formerly with **Arelo, Inc.** of Holden, Mass. Mark Paschal, a **University of Georgia** graduate, has also been assigned to the St. Petersburg branch. Tim Flowers, a graduate of **Lake City Community College** and formerly with **Jenkins Landscaping** of Hobe Sound has been assigned to the Jacksonville branch. Mike Steele, a **University of Georgia** graduate, has been assigned to the Indian Harbour Beach branch. Bruce Volpe, a **Clemson University** graduate, has been assigned to the Orlando branch. Rick Saar, a graduate of the **University of Georgia**, has also been assigned to the Orlando branch. Jim Irvin, a graduate of the **University of Florida**, has been assigned to the Fort Myers branch. The announcements were made by Robert M. Barry, technical director.

Harry E. Butler has been named regional marketing manager for **Jacklin Seed Co.**, Post Falls, Idaho, according to marketing manager Doyle Jacklin. Butler was formerly sales manager for **Stanford Seed Co.** of Pennsylvania. Prior to joining Jacklin he was vice president of **Seeds Incorporated**, Horsham, Pa.



Butler



Dietz

Paula M. Dietz has been named extension specialist in turfgrass management for **Michigan State University**. She holds a B.S. degree in Crops and Soils — Turfgrass Management from MSU.

According to Jerome R. Faulring, president of **Hydro Lawn**, Gaithersburg, Md., Kevin Mathias has been named branch manager of the company's new Springfield, Va. branch. Greg Richards is branch manager of the company's Gaithersburg branch. Both hold agronomy degrees from the **University of Maryland**.

O. M. Scott & Son, Marysville, Ohio has announced a major sales reorganization in its **ProTurf Division** that centralizes the marketing force and calls for a new field sales structure. George Horn, ProTurf marketing head, moves to corporate marketing as product line manager. Publications expert Jim Converse, former director of technical services, moves to a management post in the marketing-sales organization. Also, Brian Finger becomes South-West field sales manager. Bill Stinson becomes North-East

field sales manager. Bill Hoopes has been promoted to manager of the Professional Turf Institute.

Mark Barkhurst has joined **Northrup King Co.**, Minneapolis as a turf specialist for the Professional Turf Products Department. He recently received a B.S. degree in agronomy from **Ohio**



Barkhurst



Grygera



Akgulian



Sylvester

Akgulian has been appointed liaison product engineer for the division. And Ralph H. Sylvester, Jr. has been named manager of product training, a new position.

James M. Valentine has been named sales manager of the power tool division of **Porter Brothers, Inc.**, Shelby, N.C. The announcement was made by Chuck Bolt, vice president of marketing.

Century Rain-Aid, Madison Heights, Mich. has added two members to its sales staff. Edward J. Reiss is a sales representative for Illinois and Wisconsin. Greg Sedorchuk is responsible for turf sales.

Edward A. Oberright has joined **Aquatrols Corp. of America**, Pennsauken, N.J. as director of research. He has 40 patents registered in his name, and previously was employed by **Mobil Oil Corp.**

State University. Based in Columbus, Ohio, he will cover the Ohio and Michigan sales territory, representing Northrup King's complete line of professional turf products, including straight varieties, custom and special mixes and preformulated mixtures.

Anthony Grygera has been named product manager for riding rotary and reel mowers of the Turf Products Division, **Jacobsen Mfg. Co.**, Racine, Wis. Also, Sy

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MEETING DATES

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

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

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

Turf Irrigation Short Course, Calgary, Alberta, Canada, Sept. 26-28. Contact: Irrigation Association, 13975 Connecticut Ave., Silver Spring, MD 20906, 301-871-8188.

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

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

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

Professional Grounds Management Society Conference and Trade Show, Atkinson Hotel, Indianapolis, Ind., Oct. 8-11. Contact: Allan Shulder, 19 Hawthorne Ave., Pikesville, Md. 21208, 301-653-2742.

Florida Turf-Grass Association Annual Conference, Orlando, Fla., Oct. 15-18. Contact: Nona Murphy, 1520 Edgewater Dr., Suite E, Orlando, Fla. 32804, 305-425-1581.

18th Annual Southern California Turf/Landscape Equipment and Materials Educational Exposition, Orange County Fairgrounds, Costa Mesa, Calif., Oct. 18-19. Contact: Ed McNeill, SCTC, 1000 Concha St., Altadena, Calif. 91001, 213-798-1715.

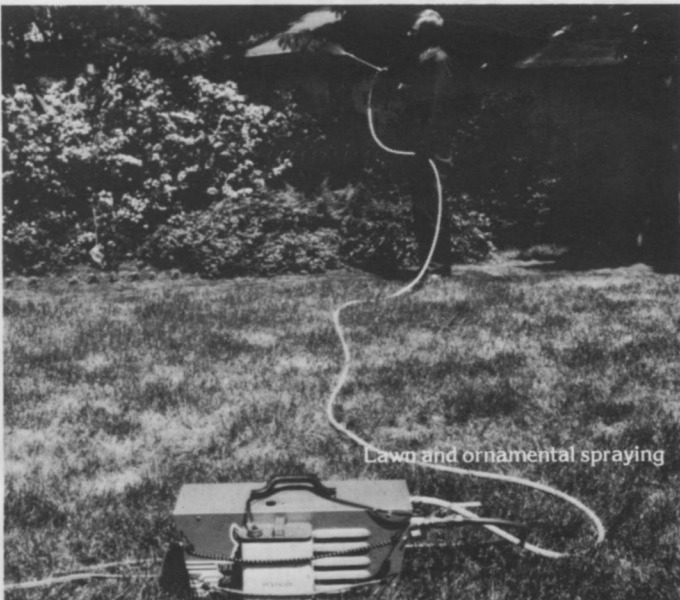
Florida Nursery and Allied Trades Show, Curtis Hixon Convention Center, Tampa, Fla., Oct. 27-29. Contact: FNATS, Inc., 6535 E. Hillsborough Ave., Tampa, Fla. 33600, 813-626-4149.

Landscape Industry Cost Accounting Seminar, Newporter Inn, Newport Beach, Calif., Oct. 28. Contact: California Landscape & Irrigation Council, 14408 Whittier Blvd., Suite B-2, Whittier, Calif. 90605, 213-941-4900.

Eighth National Institute on Park and Grounds Management, Regency Inn, Denver, Colo., Oct. 29-Nov. 2. Contact: National Institute, Box 1936, Appleton, Wis. 54911, 414-733-2301.

Atlantic Seedsmen's Association and meeting of the Lawn Seed Division of American Seed Trade Association, The Colonnade, Boston, Nov. 1-3. Contact: Margaret Herbst, 101 Park Ave., New York, N.Y. 10017, 212-685-5917.

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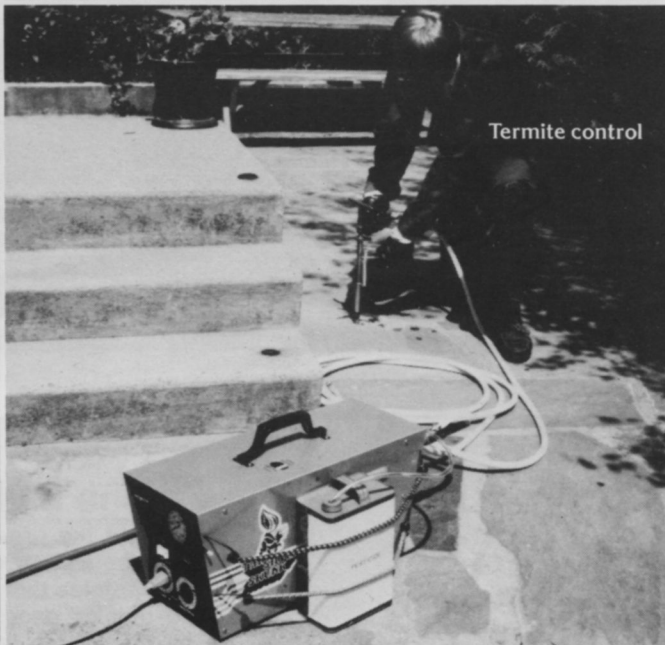
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COMPANIES

Cincinnati's Thornton restructures company

Thornton Environmental Industries, Cincinnati, Ohio has been established as a holding company for six divisions in the wholesale, retail and service horticulture industry.

President of the new corporation is William Thornton, Sr. Other corporate officers are: William Thornton, Jr., vice president, production; Gary Thornton, vice president, marketing; and Bette Thornton, secretary-treasurer. William Thornton, Jr. was recently chosen as president-elect by the Associated Landscape Contractors of America at its annual meeting in Orlando, Fla.

Five of the six divisions also have new officers and management. Spray-A-Lawn, a residential and commercial lawn fertilizing, insect and weed control service, has as its president Gary Brandt.

Thornton Environmental Management will be handled by Gary Thornton, with Rick Doe-burg as vice president of marketing and John Haubrich as vice president of production. William Thornton, Sr. will continue as president of the retail T-K Garden Store with Bruce Cate as general manager.

Thornton, Sr. will also serve as president for the wholesale division, Thornton Wilson, Inc.

COMPANIES

Hudson releases new sprayer film

A four-minute color film on proper spraying techniques has been released by H.D. Hudson Manufacturing Co., Chicago.

The film, entitled, "How You Spray Makes a Difference," is available in 16mm, Super 8mm Fairchild cassette and ¾-inch videotape cassette formats.

For further information, contact the company at 500 N. Michigan Ave., Chicago, IL 60611.



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TOOLS, TIPS & TECHNIQUES

10 steps to managing turf in shaded areas

One of the major problems facing the lawn care businessman is the maintenance of quality lawn grasses in shaded areas.

According to Dr. John R. Hall, turf extension specialist at Virginia Polytechnic Institute and State University, Blacksburg, the competition for light, water and nutrients create plant stresses which can predispose the plant turfgrass to disease attacks.

Dr. Hall recently outlined several points to consider in developing plans for the establishment or maintenance of lawns in shaded areas.

Select shade-tolerant grasses. The fine-leaf fescues such as Pennlawn and Jamestown are considered the most shade-tolerant cool-season grasses in the transition zone. Jamestown is marketed by Lofts Pedigreed Seed, Inc., Bound Brook, N.J.

Varying degrees of shade tolerance have been observed in the Kentucky bluegrasses. However, as a group of grasses the fine fescues will generally persist better in shade than Kentucky bluegrasses. The most popular cool-season grass shade mixture for the transition zone is one containing 50 to 80 percent of two or three Kentucky bluegrasses and 20 to 50 percent fine-leaf fescues.

Tall fescue is capable of persisting in moderate shade where good drainage prevails. There is a real need for shade-tolerant warm-season grasses. St. Augustinegrass, Pensacola Bahiagrass and zoysiagrass are the most shade-tolerant warm-season grasses.

Seed shaded areas in the fall. Fall seedings of shaded areas are generally more successful than spring seedings because by the time fall-seeded grasses have completed germination, the leaves are off the trees and full sunlight is available. Obviously, a good leaf-raking program is essential to successful establishment.

Maintain adequate soil nutrition. Turfgrass plants in shade generally require less total nitrogen than plants in full sunlight simply because of the reduced rates of photosynthetic activity. Nitrogen over-stimulation of shaded grasses contributes significantly to depletion of stored food reserves and thin cell walls which predispose the turfgrass plant to disease attack.

Late fall fertilization of cool-season grasses is extremely important in shaded areas because this is essentially the only time of the year when the grass plants under trees can efficiently utilize the applied nitrogen in the absence of tree competition for soil moisture and sunlight. Soluble sources of nitrogen in the November-December time frame are most efficient and beneficial.



"As a group of grasses, the fine fescues will generally persist better in shade than Kentucky bluegrasses," says Dr. John R. Hall, turf extension specialist at Virginia Polytechnic Institute and State University, Blacksburg, Va. He also says that fall seedings of shaded areas are generally more successful than spring seedings, because by the time fall-seeded grasses have completed germination, the leaves are off the trees and full sunlight is available.

Slow-release sources (more than 50 percent water-insoluble nitrogen) applied at this time tend to remain available into spring and can cause over-stimulation.

Raise the mowing height. In a reduced light situation the objective is to maximize the health of the individual plant. Low mowing heights tend to increase plant density, but this occurs at the cost of the reduced health of individual plants.

Irrigate infrequently but heavily. An irrigation program which minimizes the amount of time shaded areas are moist will be beneficial in reducing disease incidence. Infrequent watering will also tend to minimize the probability of compaction and not favor shallow surface rooting.

Maintain strict traffic control. Maintaining traffic control is more important in shaded areas than it is in full sun because of the lack of recuperative potential in shade and the inability of the thin walled grass to bear traffic without injury.

In areas where traffic is uncontrollable, annual fall sodding is a reasonable solution.

Maintain an adequate tree care program. Remove unnecessary trees that are not essential to the landscape plan. Judiciously prune trees as much as possible to maximize light penetration to the lawn. Periodic tree root pruning may be necessary where excessive tree root surface feeding is occurring. Utilize tree "spike" methods of fertilizing trees as opposed to surface area feeding of trees.

Provide good drainage and air flow. Installation of drainage tile is necessary in any situation where quality turf is desired and drainage is inadequate. Providing adequate channels for wind entry and passage through shaded areas is essential to reduce humidity and disease incidence.

Remove leaves and debris promptly. Quick removal of leaves and debris all year long is essential as they only serve to shade the lawn and reduce its food-making potential. Fall leaf removal is most critical to the production of a quality lawn in the shade.

Provide adequate pesticide protection. Powdery mildew on shaded Kentucky bluegrass and *Helminthosporium* diseases on the fine fescues are severe. Periodic application of fungicides for controlling these pathogens and others may be necessary. Control of unsightly weeds and damaging insects will improve the appearance of the lawn and reduce the competition for light, water and nutrients.

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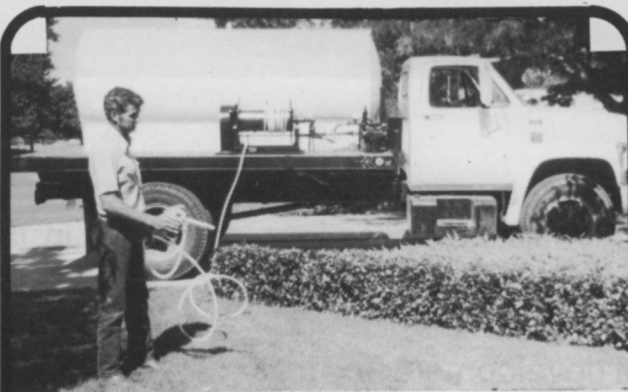
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MONEYWISE

Picking up accounts with good equipment

"Our equipment never breaks down," says Paul McGuire of McGuire Lawn Care in St. Paul, Minn., "at least as far as our customers are concerned."

Obviously, McGuire doesn't mean that his equipment doesn't break down; he just never lets his customers wait while he has something in the shop being worked on. He does it two ways — buying good equipment in the first place, and having enough equipment on hand so that a breakdown does not pull a crew off a job. He also used to have an in-house mechanic, but is moving away from that.

"Just about everybody in the business has a place where they can their equipment fixed when they need it — same-day service," he told LAWN CARE INDUSTRY. "Our customers never know if we have any problems, we get the job done the day we are supposed to no matter what." He has built his maintenance business into a \$400,000 gross in part by adding three to five major accounts a year by taking them over from companies who let equipment breakdowns do their scheduling for them.

He had been using other walk-behind mowers, but calls them "light duty." This year he went to two-cycle heavy duty rotary walk-behind manufactured by Toro Co., Minneapolis. The unit features a remote air cleaner for longer life and a five-quart fuel tank. He also uses 60-inch Hesston Corp. (Oregon, Ill.) mowers, and likes the cut he gets from National Mower Co. reel mowers, manufactured in St. Paul. He also uses 52-inch Bunton Co., Louisville, Ky. mowers for slope work, and says he likes the units because they have a low center of gravity and a wide deck.

He says the best thing equipment companies could do would be to sponsor some type of regional trade shows, "the kind where you can get out in the field and try out the equipment for yourself," McGuire says. "It's surprising how hard it



Paul McGuire of McGuire Lawn Care, St. Paul listens to Toro's Bill Albert describe the features of the company's new two-cycle heavy duty rotary for commercial use: remote air cleaner for longer engine life and five-quart fuel tank.

is to find equipment for the type of jobs you want it for, and the best way is to see it in person, not through some data sheet in the mail."

Another of McGuire's selling points is his distinctive pitch when a prospective customer gets his answering service. Read in his best Irish brogue, he says:

Best of the summer to ye, always a hot dry time in the 'ol sod.

Your lawn needs lots of fertilizer, and with the passing of the bloom your shrubs need to be trimmed back.

Get Paul McGuire's help. Leave yer name and number when ye hear the sound of the o' the Irish Green.

FERTILIZERS

Penn State researches sulfur-coated urea

Research results at Pennsylvania State University and other research stations have shown that various formulations of sulfur-coated urea are satisfactory sources of slow-release nitrogen for turfgrass.

According to Dr. Donald V. Waddington, Penn State professor of soil science, this new product offers lawn care businessmen an alternative to other

common slow-release nitrogen sources, such as ureaform, IBDU (manufactured by Swift Agricultural Chemicals Corp., Winter Haven, Fla.) and natural organics.

Waddington explains that to manufacture sulfur-coated urea, urea, (a soluble nitrogen source) is preheated and then sprayed with a molten sulfur. A sealant such as wax is often applied over the sulfur coating. The final nitrogen percentage is in the range of 32 to 38 percent, he said. The coating delays the release of nitrogen from the urea, and different release rates can be ob-

tained by varying the coating weight (thickness) and coating technique.)

Degradation of the coating and/or diffusion of soluble nitrogen through coating pores releases nitrogen. Microbial activity is not a major factor affecting nitrogen release. Release increases with temperature and may be decreased under waterlogged conditions. Coatings are not the same on each urea particle. Imperfectly coated or cracked particles release nitrogen quite rapidly. Particles with thin coatings or thin spots in the coating release at an intermedi-

ate rate. Thickly coated particles may be very slow to release nitrogen. It is the variability in particles that provides the controlled-release feature. The release from an individual particle has been shown to be rapid once it is initiated, Dr. Waddington said.

"It appears that this product will be around for awhile," he said, "and we should all make an effort to understand it better."

In summarizing various research data, he said in many evaluations a single application of sulfur-coated urea was compared to multiple applications of a soluble nitrogen source. Some work has shown high, perhaps excessive growth early after a single application, with performance dropping below the multiple soluble applications later in the season.

Similar research has shown good controlled-release characteristics with various coatings and weights of sulfur-coated urea, but split applications seem more appropriate than single applications, Dr. Waddington said.

A spottiness or blotchiness of turf fertilized with sulfur-coated urea has been reported in Florida research. He said he has noticed a similar appearance on Penn State bluegrass plots with sulfur-coated urea and other coated fertilizers. The spottiness is attributed to a low number of particles per unit area, and also to movement of the particles by irrigation or rainfall.

Dr. Waddington warns: "Release rates are not the same for all sulfur-coated ureas. One may perform strikingly different from another. Be aware of the dangers in making general statements concerning sulfur-coated urea."

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LAWN CARE INDUSTRY Marketplace

New York

For the most part, the lawn care industry in the New York metropolitan area can be spelled out in six-and-a-half words.

Lawn Doctor, Lawn King and Lawn-a-Mat.

Next year at this time, it might take eight-and-a-half or 10-and-a-half words — adding ChemLawn Corp. and Lawnrite Corp. to the list. And further down the line the names Lawn Masters, Lawn Genie, Tech Turf and a lot more will have to be reckoned with — not to mention established companies such as Green Thumb Spray Corp. who have carved out a substantial market for themselves and are not really interested in making quantum jumps in their number of customers.

But back to words; there are a few more that can capsule the New York lawn care industry — which basically includes Nassau and Suffolk counties on Long Island, northern New Jersey, southern Connecticut and Westchester County of New York to the north.

The words are: seed, dry fertilizer application and service.

"The metropolitan area is oriented to turf, not chemicals," Joe Reyes, president of Lawn-a-Mat of Summit, N.J. told LAWN CARE INDUSTRY. "Rutgers in

the area is big on turf varieties, and people are educated to want a particular grass seed in their lawns."

The big three companies — Lawn Doctor, Lawn King and Lawn-a-Mat (all with between 50 and 100 franchise dealers in the metropolitan area) — all originally offered seed along with dry fertilizer application and insect control, weed control and aeration. Lawn-a-Mat, Mineola, N.Y. was started by Dan Dorfman in the early 60's. Tony Giordano, an original Lawn-a-Mat dealer, started Lawn Doctor, Matawan, N.J., in the late 60's after breaking with Dorfman. But Giordano's program was still pretty much the same.

Joe Sandler, another original Lawn-a-Mat dealer, started selling Lawn King franchises out of Fairfield, N.J. in the early 70's. These three companies, along with Lou Sachs of Suburban Lawn Service on Long Island have all had some financial difficulties over the years.

Lawn-a-Mat still is in Chapter 11 bankruptcy status, although they have very many thriving dealers in the metropolitan area and across the country. Lawn King and Sandler are appealing an antitrust decision

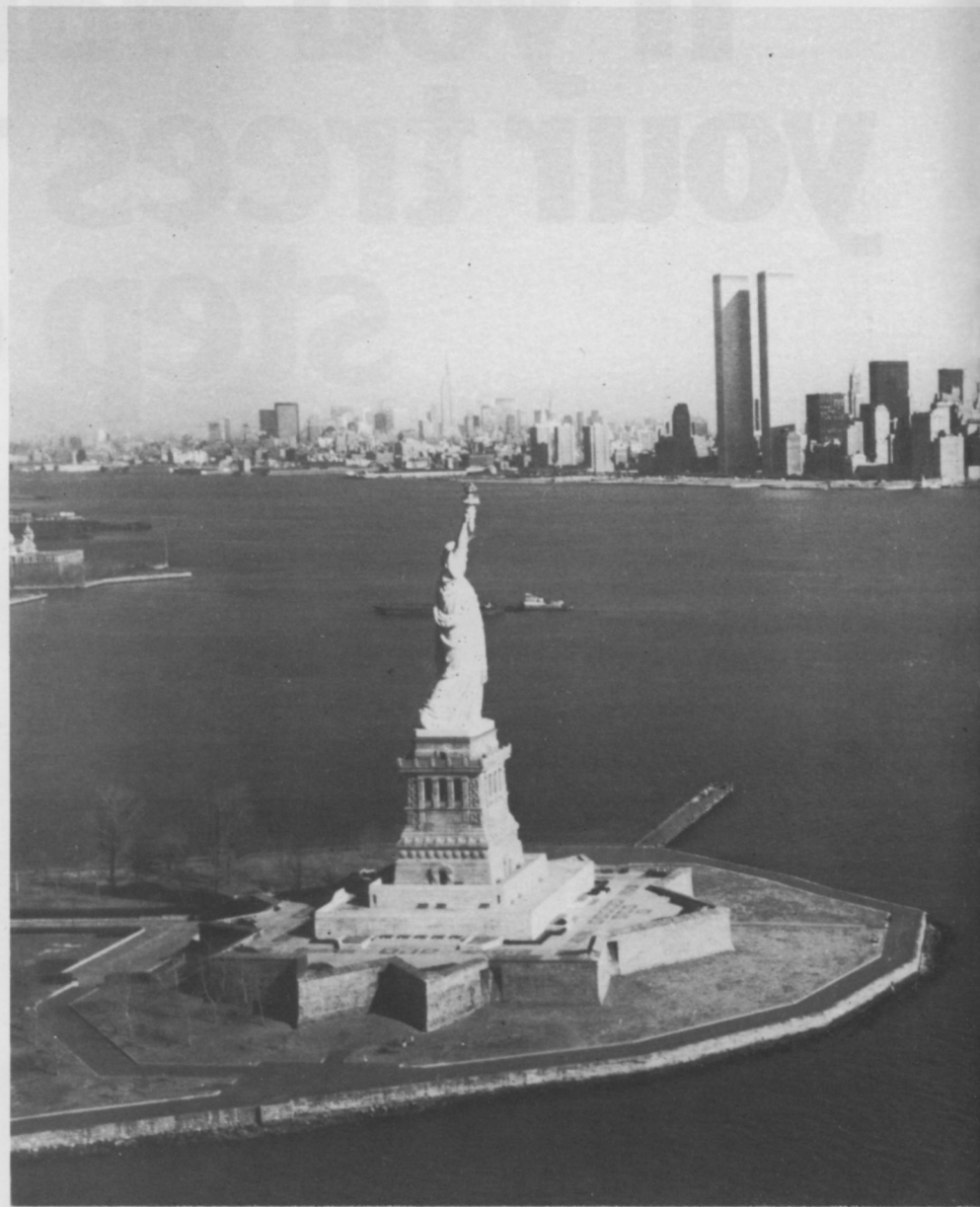
against them by the New Jersey State Superior Court (see "Lawn King Out of Chapter 11; Appealing Anti-Trust Action," LAWN CARE INDUSTRY, August, page 1). Suburban Lawn also went the Chapter 11 route for awhile. And two years ago, Lawn Doctor applied for and received a loan from the Small Business Administration — and they have been going great guns since with a few major changes.

The first change was in the equipment it offered its franchisees. The switch was from the larger combine that Lawn-a-Mat and Lawn King use to what Giordano calls his "speed machine," built by the company at a cost of \$600.

"We were beating our heads against the wall trying to reach the 10 percent of the homeowners who had lawns that were dead and needed seed and to be built up," he said recently. "Now we are going after the 90 percent of the lawns that need less maintenance." Most of the Lawn Doctor dealers, according to Giordano, have between 800 and a 1,000 customers with average lawns of 7,000 square feet. The base charge is \$80 for five applications, and fungicide applications and lime applications on an as-needed, extra-charge basis.

Most Lawn King and Lawn-a-Mat dealers offer four or five applications with a number of check-back calls. Sandler says his dealers average almost 300 customers with lawns between 6,500 and 7,000 square feet. The average annual charge is just over \$200 per lawn, he said. Bill Neville, Lawn-a-Mat of Scotch Plains, N.J., says that his average annual charge for five applications is \$284, which is a little higher than most Lawn-a-Mat dealers in the metropolitan area.

Just about the time Lawn Doctor was going to its new program, ChemLawn, the predominant lawn care company in the country, was opening up branches in the metropolitan area. It now has three branches. Ray Sharets is manager of the



by Bob Earley
Editor

Left: The Statue of Liberty on Liberty Island, and across the wide bay is Manhattan. At left center is the spire of the Empire State Building, in the center the twin towers of the World Trade Center, and at far right the Brooklyn Bridge. Above and right: Some of the competition that knocks heads in the New York metropolitan lawn care market.

Nassau County branch, Tom Korczyk is manager of the Suffolk County branch, both on Long Island, and Carl Ofsik is manager of the lone New Jersey branch, just down the street from Lawn King offices in Fairfield, N.J.

"We're the new guy on the block," Ofsik told LAWN CARE INDUSTRY. "When we first started, people were saying 'hey, you're not putting down any seed,' and they were a little skeptical. But now they are beginning to see the success of our program, and we are starting to get less questions and more referrals." ChemLawn offers a five-application spray program, similar to what they offer in other parts of the country. The average annual charge is about \$120.

Paul Kampe, president of five-year-old Lawnrite, Bohemia, N.Y. does a substantial business on Long Island with 35 total employees and 16 turf spray technicians. His basic charge is \$16.50 for 3,000 square feet of lawn as a minimum for four applications. He says his average annual charge per customer is \$139.

Lawn Masters, Hawthorne, N.Y. owned by Bill Carey and Tom Moscati, has just about 1,000 customers in Westchester County. They offer both liquid and granular applications and tailor the program to meet the customer's needs. Their average annual charges are usually \$225 for the first year the customer is on their program and usually \$180 after that.

Dick Ziskind and Lee Grubman began Green Thumb Spray Corp., Hempstead, N.Y. almost 20 years ago. They say that most of their customers employ landscape gardeners for mowing and maintenance and Green Thumb for tree, shrub and lawn spraying. They have between 1,500 and 2,000 customers, at an average annual charge of almost \$300 for the customers that have both lawns and trees sprayed. This includes anywhere from seven to 10 trips a year, depending on the customer and the severity of the season.

Whether it be dry application or spray, all of the lawn care companies in the New York metropolitan area stress service. They have to.

"This is the toughest market in the country," Giordano says. "The people are tough and mistrustful, they are used to getting ripped off and they are suspicious. But it goes both ways — if you give them good service, they will keep coming back and tell their neighbors."

"If we get a call or a complaint, we are on that lawn within 24 hours, it's as simple as that," says Jerry Schwartz, co-owner with Gerry Merblum of a Lawn-a-Mat franchise based in Baldwin, N.Y. on Long Island. Lawn-a-Mat's Neville says that he can trace 30 customers who left his service last year because of a scheduling mixup that did not allow his men to service lawns within 24 hours of a call.

Most New York area lawn care businessmen say that ad-

vertising and promotion is important to reach the homeowner. Lawn Doctor probably has the splashiest marketing plan, utilizing television ads during the Johnny Carson show and also during other programs, and having 200,000 tee-shirts printed up with the distinctive green thumb Lawn Doctor logo.

"It takes a check book to market in New York," Lawn Doctor vice president of operations Fred Diegtel told LAWN CARE INDUSTRY. "We are spending aggressive dollars to get our share of the market."

It is estimated that the sum total of advertising dollars spent by Lawn-a-Mat dealers in the New York areas is between \$500,000 and \$1 million. Neville says he spent \$13,000 last year; Reyes said he spent \$8,000.

Lawnrite's Kampe estimates that his company mailed out 600,000 direct mailers last year on Long Island alone, and says that this is 40 percent of his advertising budget. He estimates that he spends another 40 percent of his budget in newspaper advertising and 20 percent on radio advertising. Sheldon Ofshe, Lawn-a-Mat dealer based in Bellmore, N.Y. says that he and many other lawn care businessmen utilize ads in "pennysavers" — weekly shopper newspapers. ChemLawn has had much success with inserts in newspapers, newspaper ads, clipout coupons in ads and also "pennysavers."

On the other hand, Green Thumb's Ziskind says that they have never realized a good re-

turn on advertising, and are at the point where they depend almost completely on referrals for new customers.

What does the future hold for the lawn care industry in the New York metropolitan area? Lawn care businessmen offer nothing but promise.

Two years ago, Lawn Doctor grossed \$15,000 in the metropolitan market. This year they have 50 dealers and will gross \$6 million on about 50,000 customers, Diegtel says. In five years, he says the company hopes to have 250,000 customers and be grossing \$35 million. "We are going to be the McDonald's of the lawn care industry," he says.

Lawnrite's Kampe says he hopes to have 50,000 customers in five years, and that he hopes to expand out from Long Island. John Gallignani, a Lawn Doctor dealer in Islip on Long Island for seven years, put on a marketing push this spring and wrote \$200,000 worth of business, adding 1,600 customers to the 1,000 he built up over six years. And although ChemLawn is still getting established in the market, they have tripled their business in the last year and hope to double their employee numbers before next lawn care season.

Businessmen indicate growth figures anywhere from 10 to 40 percent. Lawn-a-Mat's Ofshe aptly capsulizes the situation of the lawn care industry in New York (and elsewhere across the country). He describes it as a "biblical business" — because "customers beget customers."



Bill Neville, Lawn-a-Mat, Scotch Plains, N.J.: "It is just as hard to sell a customer on a \$50 program as it is on a \$300 program. Other companies were stopping work in mid-October, and we started a fifth application program that took us through December. Everybody said our customers were going to quit. We raised our price from 3½ cents to 4½ cents per square foot, we lost 20 customers and we gained 80 at the higher price. We now can provide disease control and lime at the higher price."



Tom Moscatti, Lawn Masters, Hawthorne, N.Y.: "We are a full service company, and have the ability to do almost anything the customer needs. We have about 950 customers, about 100 of which are full service, including mowing. About 25 percent of these are commercial accounts. Our operation is primarily granular using larger commercial spreaders. We are just setting up procedures for our chemical accounts, and are using tractors with pull-behind combines for our work. We are doing some liquid application too."



Carl Ofsik, branch manager, ChemLawn Corp., Fairfield, N.J.: "This is a relatively new branch, we have been here about 1½ years and are in our second season. We are the new guy on the block and getting established, but the potential is definitely here. We are doing something a little new this year in that we are hiring our people this fall for next spring. This way we get them trained and ready to go for next year when the season starts. Once we get over the questions about spraying, we'll start getting more referrals."



Joe Sandler, president, Lawn King, Fairfield, N.J.: "We have about 70 dealers in the New York metropolitan area, the bulk of them are full-time and serving close to 300 customers each. We have over 20,000 customers on a Lawn King program in the metropolitan area. Our average price for the typical customer is about \$200 for a lawn that is 6,500 to 7,000 square feet. . . . Television advertising makes a tremendous impact, but the cost is going sky high. We used to be on the radio 110 times a week, but it doesn't work as well because lawn care is a very visual thing."



Dick Ziskind, president, Green Thumb Spray Corp., Hempstead, N.Y.: "We have built our business on a high standard of quality. Almost all of our 2,000 customers have gardeners for mowing and trimming, and we do the spray work. We charge \$180 for 4,000 square feet, and anywhere from \$20 to \$400 for tree and shrub spraying. Our basic program is fertilization, weed control and insect control — probably seven visits a year. We provide fungicide spraying if it is needed, and we can tell because we are out on the lawns often enough."

Bill Carey, Lawn Masters, Hawthorne, N.Y.: We started in 1974, and have realized a 35 to 40 percent growth rate in gross dollars. We offer three different programs plus a top-of-the-line customized program. We are making an effort to get away from the totally standardized programs. We have a work sheet that our men use that suggests to the customer what his lawn needs. Our costs are generally about \$225 average up-front to get a new account on our program, and then it drops down to an average of \$180 the second year. We also have a 'bare bones' program."

Tony Giordano, president, Lawn Doctor, Matawan, N.J.: "For every 100 homes, only 10 have lawns that are bad enough they need aeration and seed. Before we changed to a basic fertilization/weed control/insect control program two years ago, we were beating our heads against the wall for only 10 percent of the total home lawns. . . . The secret of doing well in the lawn care business is the people, not the technical knowledge. Our franchisees are independent businessmen, who are building equity in their business and future. I can't say enough about our people."

Lee Grubman, Green Thumb Spray Corp., Hempstead, N.Y.: "Our average customer spends almost \$300 with us — probably \$180 for his lawn and \$90 for tree spraying. . . . We put down six pounds of nitrogen a year, and we used to go up to eight pounds in the past. Our lawns just look better than our competitor's; we are interested in giving our customers an outstanding lawn, not just an acceptable lawn."

Fred Diegtel, vice president, Lawn Doctor, Matawan, N.J.: "Two years ago, we grossed \$15,000 in the New York metropolitan lawn care market. This year, we have about 50 dealers, more than 47,000 customers, and we will gross \$6 million. We've done it by being aggressive and using all the marketing tools we can, including mailers, doorknob hangers, newspaper ads, television ads, tee shirts with the distinctive Lawn Doctor green thumb logo. Forget naming a percentage, the lawn care market in New York is untapped."

John Gallignani, Lawn Doctor, Islip, N.Y.: "We have 2,600 lawns on the books now — 1,600 of which we added this spring. We put on a heavy sales campaign, and everything just clicked; we wrote \$200,000 of business this spring. . . . Our average lawn is about 7,000 square feet, and our average billing is \$139. . . . We charge about ½-cent to apply a fungicide per square foot, and about one cent to seed per square foot. . . . Our 10 sales people hang door-hangers by the day and make phone calls at night."

Joe Reyes, Lawn-a-Mat, Summit, N.J.: "The lawn care businesses operating in Union County — where Summit is located — have the highest renewal ratio in the country. My renewal ratio is between 69 and 70 percent. This might sound low compared to what some people say, but they just total up their number of customers and include their new customers when they do their figures. They say 85 percent, but it is probably closer to 55 percent for most companies. . . . This state is oriented to turf and seed, not chemicals — consumers want a particular grass, and that is why companies that provide seed in their lawn care program do so well here. . . . We are now doing soil testing for all of our customers; psychologically it helps retain the customer, and, scientifically, it shows them why we are doing what we are doing for their lawn. . . . In all of our marketing and promotion, we emphasize the word 'program', this is a word the customer already understands, and he knows it means more than just a number of applications."

Paul Kampe, president, Lawnrite Corp., Bohemia, N.Y.: "We have found out how to communicate with our customers. First, you have to be available, and that is why we have a six-person customer service department that handles all correspondence and any complaints. Second, you have to guarantee your work. If our customers are not satisfied, we go back and do it over or give them their money back. . . . We only offer one program; we are not going to get into the position of offering only two-thirds of a program. The image we want to portray is that when our customer turns his lawn over to us, we will take care of all of its needs except mowing and watering. . . . Our minimum charge is \$16.50 for 3,000 square feet for fertilization, weed control and insect control. We apply fungicides as needed and spot seed as needed at no extra cost. . . . We have three levels of turf technicians, depending upon where they are in our training program. They all have a territory assigned to them, but they do not handle sales — we presell all of the work that they do."



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Marc Sandler, Lawn King, Fairfield, N.J.: "Many companies today are reverting to a cat and dog syndrome of competing with each other rather

than doing their best to get their own share of the market. . . . It incenses us when companies advertise that they provide one more service than their competitors, but don't put down any more material than they do normally, and charge for that extra trip."

Jerry Schwartz, Lawn-a-Mat, Baldwin, N.Y.: "Our trucks are self-sufficient, they carry everything they need, including a

powered aerator and 50-gallon spray tank for fungicide spraying. This has cut down on the time lost traveling back to the office for something one of our operators forgot to put in his truck in the morning. . . . We offer a full program to our customers, and are out on their lawn every three to four weeks."



Pat Lore, vice president, Lawn-a-Mat, Mineola, N.Y.: "Our dealer organizations on Long Island and New Jersey are one of our strong points. They

are all solid, and willing to help each other with problems that might come up. Nobody in this area has as much experience as our dealers do. Our dealer with the least experience has been in business more than eight years."

Frank Claps, Frank Claps Landscape, Larchmont, N.Y.: "We need our image promoted to get the entire industry at a level where the home-

owner will recognize us; customers still think of us as domestics. Plumbers and electricians have passed us, and get up to \$35 an hour just for walking in your door. This is because we are an industry oriented to giving free estimates."



Vin Tirollo, 27, Lawnrite Corp., Bohemia, N.Y.: "This year for the first time we are using a \$60,000 IBM System 32 computer. In a series of

master printout books, we have 400 characters of information about each of our customers, including information on front and back lawns, how much thatch is present at any given time.

NASSAU AND SUFFOLK COUNTIES

Long Island landscape gardener revenues \$138 million in 1976, Cornell study shows

The metropolitan New York City area is one of the most extensive and highly maintained turf areas in the country. Maintenance of this vast area is accomplished by homeowners themselves and an ever-increasing

number of landscape gardeners and lawn chemical applicator businesses. These businesses abound as do numerous local and regional trade associations. One of these on Long Island, the Nassau-Suffolk Land-

scape Gardeners' Association, initiated a project to determine the nature of the landscape gardening business and the dollar volume of services they generate.

to page 16

Average yearly charge for services by plot size and business size for landscape gardener businesses on Long Island, 1976.

Plot Sizes	Small Businesses		Medium Businesses		Large Businesses	
	Total Charge	Charge per 1000 Sq. Ft.	Total Charge	Charge per 1000 Sq. Ft.	Total Charge	Charge per 1000 Sq. Ft.
5,000 Sq. Ft.	\$ 377	\$94	\$ 508	\$127	\$ 543	\$136
5,000 - 10,000	545	73	713	95	822	110
10,000 - 15,000	635	51	915	73	1,108	89
15,000 - 22,000	719	39	1,334	58	1,482	80
22,000 - 44,000	1,105	32	1,334	40	2,010	61
1 - 2 Acres*	1,517	32	1,513	23	2,503	38

* observations on plots in excess of 2 acres were too few to tabulate.

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Gross Revenue from Landscape Gardener Business for Nassau and Suffolk Counties, New York 1976*

High Density	\$ 6,203,351
Medium Density	102,330,690
Low Density	29,566,284
Total Nassau-Suffolk	\$138,188,325

*Does not include lawn chemical service business or maintenance of commercial businesses, golf courses, churches, schools, parks, cemeteries, etc.

Labor Used by Lawn Chemical Service Businesses on Long Island 1976

Man Equivalents per Business	3.2
Gross Sales per Man Equivalent	\$32,380
Man Hours per Season*	5,120
Gross Sales per Man Hour	\$20.50

*one man equivalent = 1,600 man hours per season

Selected economic factors by size of business for landscape gardeners on Long Island 1976

	Small	Medium	Large	All Businesses
Business Reporting	77	112	32	221
Gross Sales (total reported)	\$1,150,000	\$6,000,000	\$5,520,000	\$12,670,000
Gross Sales per Business	\$20,000	\$53,571	\$172,500	—
Accounts (total reported)	1,838	7,052	6,203	15,093
Accounts per Business	24	64	207	—
Gross Sales per Account	\$625	\$837	\$890	\$839

Selected economic factors for lawn chemical service businesses on Long Island 1976

Businesses Reporting	26
Gross Sales (total reported)	\$2,720,000
Gross Sales per Business	\$105,000
Accounts (total reported)	12,580
Accounts per Business	484
Gross Sales per Account	\$216

Types of services offered by landscape gardener businesses on Long Island 1976

Service	Percent of Businesses Performing
Fertilizer Application	99
Cutting (Mowing & Edging)	96
Spring & Fall Cleanups	93
Herbicide Application	91
Lawn Renovation	88
Insecticide Application	87
Ornamental Shrub Maintenance	84
Fungicide Application	83
Lawn Installation	66
Installation of Ornamental Plantings	61
Maintenance of Flower & Vegetable Gardens	53
Landscape Construction	39
Irrigation Installation	11
Structural Pest Control	9

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Model 30 Loader	2-Row Cultivator
350 Mower	30 Integral Plow
71 Flexi-Planter	40 Rotary Tiller
11 Light-Duty Field Cultivator	45 Rear Blade
	25A Flail Mower



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LONG ISLAND from page 15

In a survey developed in conjunction with Cornell University, it queried close to 2,700 reported landscape businesses on Long Island. All sizes and all levels of proficiency were represented in the list gathered from screened mailing lists supplied by government agencies and the leading turf industry suppliers in the area. The results which follow are based upon the 221 responses from that survey.

The businesses responding ranged in age from newly started to over 78 years of experience in the field. The average age was 12 years in the business.

Two distinct types of businesses became evident from the responses. Results will be reported separately for these two groups, landscape gardeners and lawn chemical service businesses.

Landscape gardener businesses were divided into three categories by size for reporting purposes. The small category represents those responding businesses with total gross sales (for 1976) under \$20,000. A medium business had gross sales from \$20,000 to \$100,000, while in a large business gross sales exceeded \$100,000.

Landscape gardeners generally perform a complete line of maintenance functions. These usually start with spring cleanup and end with fall cleanup and fall fertilization. During the growing season, weekly mowing is performed and fertilizer, herbicide, insecticide and fungicide applications are made as required.

Pricing is a matter of great interest in this competitive market. Average prices charged tended to increase as the size of the firm increased for all plot sizes surveyed. The average charge reported here represents a total yearly charge for the services provided to any given account. Typical services performed on a 5,000 sq. ft. plot include fall and spring cleanups, ornamental shrub maintenance, 30 mowings, one application of lime, three fertilizer applications, post-and pre-emergence weed treatments, insecticide application

Types of services offered by lawn chemical service businesses on Long Island 1976

Service	Percent of Businesses Performing
Herbicide Application	100
Insecticide Application	100
Fungicide Application	96
Fertilizer Application	96
Lawn Renovation	96
Lawn Installation	54
Spring & Fall Cleanups	19
Ornamental Shrub Maintenance	19
Cutting (Mowing & Edging)	15
Landscape Construction	15
Installation of Ornamental Plantings	12
Irrigation Installation	12
Maintenance of Flower & Vegetable Gardens	4

Labor Used by Landscape Gardener Businesses on Long Island 1976

	Small	Medium	Large	All Businesses
Man Equivalents per Business	1.2	2.9	7.8	5.5
Gross Sales per Man Equivalent	\$12,780	\$18,240	\$29,990	\$18,950
Man Hours per Season*	1,920	4,640	12,480	8,800
Gross Sales per Man Hour	\$ 8.00	\$11.50	\$13.80	\$11.80

*one man equivalent = 1,800 man hours per season

and fungicide if needed as well as spot reseeding where required.

Labor in this industry often consists of the owner-operator of the business and his crew. As one would expect, the number of laborers required increases with the size of the business. Crews swell in spring and fall to handle the heavy cleanup chores but tend to level out during the summer season. The degree of mechanization of each firm in part determines the ultimate labor force required. For example, lawn chemical services are often highly mechanized and require few laborers to service their accounts.

According to another recent Cornell University survey, there are 1.1 million acres of turfgrass in New York State and over 800,000 acres involve residential and commercial properties. The actual figures indicate 763,437 acres residential and 67,792 acres commercial. Nassau and Suffolk counties account for 22 percent of the residential turf in New York State.

To arrive at these figures, the Cornell group used Land Use Natural Resources (L.U.N.R.) photos to calculate total residential housing density in three broad categories, high, medium and low density, and the actual turf area in each density category. These aerial photo surveys indicate the following for residential properties in these two counties.

Note that these local figures do not include other maintained areas such as commercial businesses, golf courses, sod farms, schools, parks, cemeteries, churches, and health-related facilities.

Multiplying the area data by the average of charges per 1,000 square feet in a given size category, it is possible to calculate the total potential residential maintenance revenues available to landscape gardeners. One-fourth of this amount (the proportion estimated to be professionally maintained) is the estimated total gross revenue for maintaining residential properties by landscape gardener businesses in Nassau and Suffolk counties.

Turf in Nassau and Suffolk Counties

Suffolk County Residential Properties

Housing Density	Acreage in County	Percent Turf/Plot	Total Turf
High	1,799 Acres	45%	810 Acres
Medium	87,255	65	56,715
Low	56,248	90	50,623

Nassau County Residential Properties

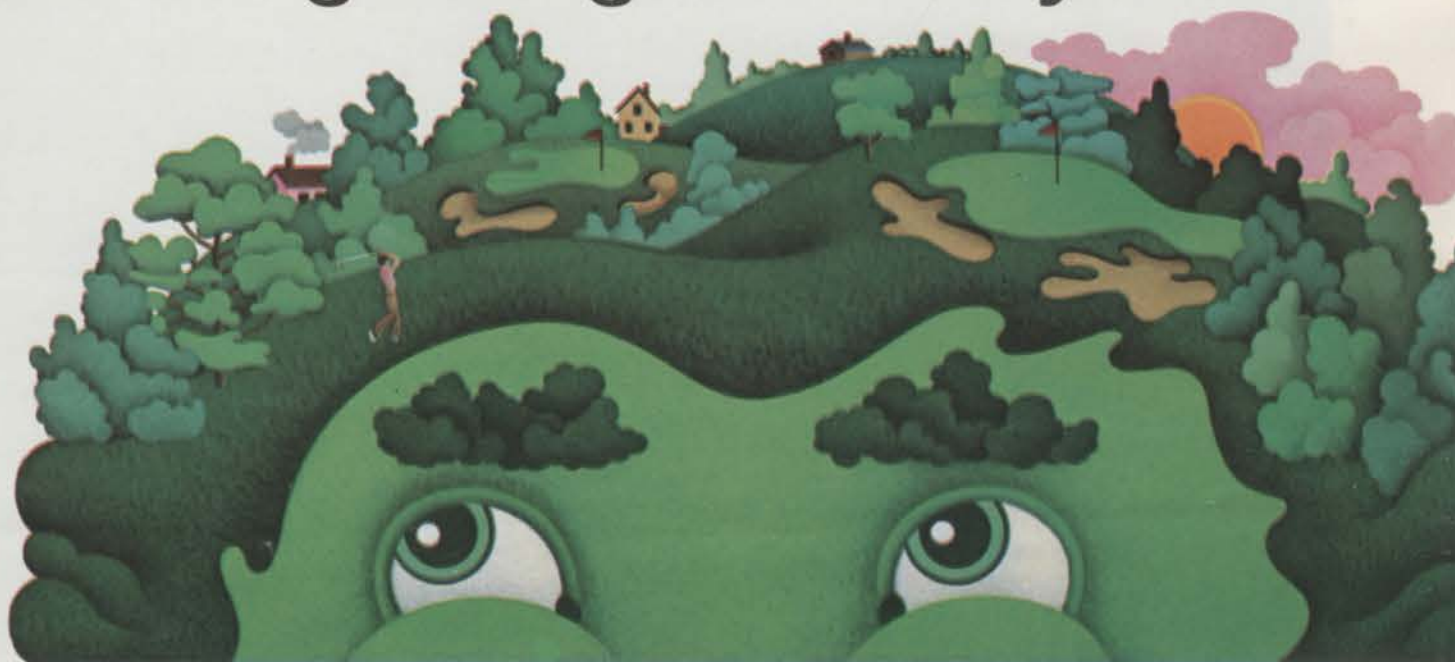
Housing Density	Acreage in County	Percent Turf/Plot	Total Turf
High	8,731 Acres	45%	3,929 Acres
Medium	69,716	65	45,315
Low	13,206	90	11,885

Average yearly charge for services by plot size for lawn chemical service businesses on Long Island, 1976

Plot Sizes	Average Charge	Average Charge Per 1,000 sq. ft.
5,000 sq. ft.	\$162	\$41
5,000 - 10,000	232	31
10,000 - 15,000	429	34
15,000 - 22,000	525	28
22,000 - 44,000*	875	27

* observations in plots in excess of one acre were too few to tabulate

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Spray: What to look for in tanks, pumps, nozzles, hoses, guns, reels

Ray Timm owns Greentop Lawn Spray in Warren, Mich. Al Brown owns Altop Lawn Spray in Sterling Heights, Mich. When the picture of them that accompanies this article was taken they were discussing the problems they, and other lawn care businessmen have trying to find equipment suited to their operations.

"We know that the equipment is out there — it might have to be modified somewhat for lawn spray — but it is often not available to us," Timm told LAWN CARE INDUSTRY.

"We are stuck with what our nearest distributor offers," Brown added to that.

That is the situation in a nutshell. There is not a lack of manufacturers and equipment

for lawn spray, just a lack of communication channels and distribution networks to get the spray equipment to the industry. On the part of the lawn care businessman, there is a lack of knowledge of what is available. There is also number of products being manufactured for the pest control or agricultural markets with applications in the burgeoning lawn care market. LAWN CARE INDUSTRY asked a number of spray equipment manufacturers for their comments on products available for the lawn care industry and what they had on the market. We couldn't fit it all into this issue, so look for further product information in upcoming issues.

On with the information. Not necessarily for this lawn care



Al Brown (left), Altop Lawn Spray, Sterling Heights, Mich.: "We are stuck with what our nearest distributor offers." Ray Timm, Greentop Lawn Spray, Warren, Mich.: "We know the equipment is out there, it just isn't always available to us."

season — it's more than half over in most parts of the country — but to help you make intelligent decisions for next year.

A. G. Garoust, president of Ecor Spray Systems Division, Melbourne, Fla., said:

"Ten years ago, our lawn sprayers and others on the

market needed to be redesigned to make them more efficient and durable. At that time, almost the entire construction was of steel, including the tanks and the skirting. Of course, this resulted in rapid deterioration of the entire unit since rust contamination spread quickly to all parts of the sprayer.

"Another of the problems encountered with steel was the incredibly high weight factor that was experienced as a result of the heavy steel needed to compensate for the erosion of the metal. This high weight factor caused undue strain on the trucks which resulted in fast tire wear and premature truck chassis problems, such as front axle kingpin failure."

The goals that Garoust said his company set to redesign sprayers may be good tips on spray equipment. First, the unit should be corrosion-resistant, including the skirting, he said. Second, the unit should be light and well-balanced for proper weight distribution. Third, the tanks should be designed to permit better agitation flow characteristics. Lastly, the unit should be strong and durable.

"To eliminate the problem of corrosion, we made all fiberglass tanks and one-piece molded skirting, which is not only considerably lighter, but stronger too," he said. "We suggest air-tight lids for the tanks to prevent spillage of chemicals onto the truck frame. We also suggest high-grade stainless steel for hardware and other assemblies."

Garoust also says that mechanical agitators are troublesome and ineffective and suggests non-corrosive jet agitators that produce a more thorough mixing of the agents in the water. He also suggests that pumps be matched to the requirements of the standard lawn care application rather than random selection as has often been the case in the past.

"Too often" he said, "60 gallon-per-minute (gpm) pumps were installed on spray rigs when 25 gpm was more than sufficient. And with today's high fuel costs, pump efficiency is more than a convenience if the applicator expects a favorable profit from his investment."

He said that the increasing use of liquid fertilizers has gained popularity for use of two-stage centrifugal pumps because of the pump's greater corrosion resistance and lower maintenance costs. In addition, the in-

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initial cost of the pump is less than half that of comparable piston pumps.

For pump drives, he suggests either PTO (power-take-off), as in the case of one- to 2½-ton trucks, or auxiliary gas engines. "As fuel costs become a more important factor, auxiliary engines are gaining acclaim in many parts of the country despite usually higher maintenance costs.

"We have always felt that the tanks are the single-most important element of a sprayer, and shape and size should be carefully designed to meet the criteria of the application," he said. "In addition to regular spray tanks, we also manufacture specialty tanks like the 200-gallon mixing tank, commonly referred to as the 'drop tank' used primarily in the Southeast on full-size lawn spray trucks. This tank, situated on the rear of the rig, is gravity-fed from the large tank and enables the operator to mix small batches of solution without having to mix the entire large tank."

Hill's Liqui-System, Victoria, offers these points to look for when buying lawn care equipment:

To produce maximum profit, Hill says, equipment must be fast. Treatment of 1,000 to 2,000 square feet per minute should be provided. No helper should be needed. Time between jobs is important too, so equipment that can move quickly has an advantage. A good appearance should be designed into professional lawn care equipment. Ample space should be provided for signs. Easy cleaning of surfaces is desirable, and fertilizer stains and rust should never be seen.

Fiberglass and stainless steel are low-maintenance materials, Hill said. Steel is very costly to care for in a lawn care rig. Finally, lawn equipment is expensive and its cost should be spread over many years of use. Corrosion-protected equipment easily justifies a higher initial cost.

Skip Strong, **Strong Enterprises**, Miami, Fla., agrees with the cost factor.

"One of the worst things lawn care companies can do in buying equipment is look only at the cost of the unit," he said. "Anyone that buys equipment for price and not performance is fooling himself.

"There have been many cases where we have lost a sale due to a price difference, only for the customer to find out a year or two later that the cheaper piece of equipment will no longer do the job. Also, anyone getting bids on two comparable units — one with a steel tank and another with a fiberglass tank — must expect a higher cost for the fiberglass unit. Fiberglass is more expensive than steel, especially with the special chemical-resistant resins needed to handle today's mixtures." He offers this cost comparison:

A 1,200-gallon steel tank with an initial cost of \$1,000. Five-year maintenance costs include sandblasting, patching and repairing at a cost of about \$500. Then the unit will need to be replaced after 10 years, with a

replacement cost of \$1,600 due to inflation. Total cost — \$3,100.

A 1,200-gallon fiberglass tank has an initial cost of \$1,800. Maintenance costs for 10 years would only be about \$325 for compounding, wax or repainting once a year. Total cost over 10 years — \$2,125, or a difference of \$975.

Al Henjum of **Hypro, Division of Lear Siegler, Inc.**, St. Paul, Minn., offers a tip to the lawn care businessman — use the pump best-suited for the particular job.

"Centrifugal pumps are developing into the best all-around choice," he said. "In many instances they develop the moderate pressures with good capacity and long life at low cost that the lawn care businessman is looking for. The centrifugals offer long life and good wear characteristics for the wettable powders that are widely used in the industry. They are also helpful when the operator mixes herbicides and insecticides to do a balanced lawn spraying operation."

Even with good abrasive handling characteristics of the pump, an agitator should be used to make sure the liquid is properly mixed and kept in suspension, Henjum says. Another advantage of centrifugals is that no relief valves or unloader valves are required. A throttling valve is a good addition to it in order to balance the system.

"The total piece of equipment should be sized to do the job right with the proper strainers, spray nozzles and other equipment," he said. "Equipment should be kept clean and flushed regularly after use to prevent contaminants from building up and running the system and/or 'botching' a future job." Frank X. McGarvey, vice president of **Micron West, Inc.**, Houston, Texas says that there is no substitute for selecting good equipment which utilizes the latest innovations.

"The costs of labor and chemicals are going to continue to rise," he said. "We must develop equipment, chemicals and application programs which will keep us competitive in our market." He believes that the biggest threat to continued growth in the lawn care industry is the cost of services.

"The consumer has reached the point where he weighs the cost/benefit ratio between letting a professional care for his lawn or doing it himself," he said. "We believe the controlled droplet application spraying can reduce chemical cost and application time. An example of reduced chemical cost is the reduction of Monsanto's herbicide Roundup from two to three quarts per acre to as low as one-half pint per acre in recent applications." Micron West's "Herbi" spray applicator offers better distribution of pesticides because of a smaller droplet size, McGarvey said.

The best size of a tank for a lawn care company is one that will carry a load that will last all day without refilling, according to Bob Person, **Finn Equipment Co.**, Cincinnati, Ohio.

"Ideally, the mixture in the

tank should be concentrated so that a maximum four gallons of mixture will cover 1,000 square feet," he said. "To cover 200,000 square feet per day requires an 800-gallon tank and 300,000 square feet will require a 1,200-gallon tank."

Person says that it is most important to have an agitation system that will uniformly mix the materials so that the first lawn and the last lawn of a tank mix receive the identical concentration of materials. A mechanical paddle agitator has proven to be the most uniform system, Person said. The speed of the agitator should be variable to properly work with the various products used through the lawn care industry.

"Different brands of granular fertilizers will require different levels of agitation," he said. "Those that do not break down in water require more agitation to

keep them suspended while others which may have a tendency to foam can be controlled by reducing the agitator speed."

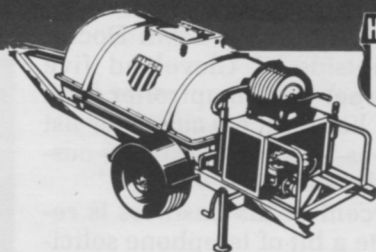
He says that centrifugal pumps are best-suited to pump granular products. Certain models can pass large solids and have a high degree of abrasion resistance. Their reliability is high with low maintenance.

"Independent power is more economical than PTO, but the noise level is higher and reliability is lower," he said. "A PTO drive off the truck is easier to operate and productivity is generally higher. A hydraulic drive from the PTO is perhaps the best system. It offers reliability in addition to the flexibility of variable pump and agitator speed control."

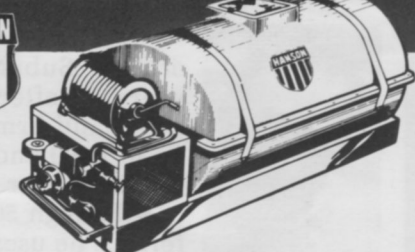
He says that ½-inch and ⅝-inch hose diameters are most common in the lawn care in-

to page 20

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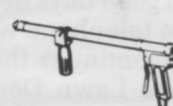
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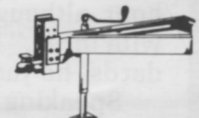
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SPRAY from page 19

dustry. The 1/2-inch is easier to pull, while the 5/8-inch works better with heavy loads of granular material. As for nozzles, he says that to apply most granular fertilizers a single-hole nozzle is necessary. Three available patterns are: flood jet — a six- to eight-foot wide swath with the nozzle held stationary; veejet — a flat vee pattern that is moved from left to right; and hollow cone — a round pattern that is moved from left to right with excellent overlap coverage.

Elaine V. Barkoulies of **Spraying Systems Co.**, Wheaton, Ill., offers these tips to lawn care businessmen:

- Maintain a periodic program of cleaning and maintaining spray equipment, especially spray tips.

- Check for wear.
- Test spray tips regularly for proper capacity and calibration.

Fred Dountz, **Dountz Equipment Co.**, Columbus, Ohio says that the most important things to look for when purchasing a lawn care unit are good tank agitation, a positive displacement pump for an even delivery of material and matching the gun with the pump output.

Don Westheffer, president of **Westheffer Co.**, Lawrence, Kans. says that lawn care businessman should purchase sprayers designed for their specific type of spraying. Also, it should be durable and easy to operate and maintain.

"Tanks should be well-vented with manholes that allow easy access to filling and cleaning," he said. "When tank gallonage is

over 200 gallons or when using wettable powders, mechanical agitation is definitely recommended. Corrosion-resistant tanks add to the life of your unit as well as to the ease of daily maintenance. Stainless steel and fiberglass tanks are recommended. The adequate plumbing system includes good drainage and an easy-to-reach strainer. Strainers should be cleaned a minimum of once a day."

"When in the market for fiberglass tanks for lawn care, there are several important factors which determine the highest quality product for your investment," says Mike Sayward, president of **Tuflex Mfg. Co.**, Fort Lauderdale, Fla.

"Avoid tanks that are manufactured by joining two halves together utilizing only polyester paste," he said. "This type of construction can be recognized by viewing the seam area through the access hatch. Polyester paste used in conjunction with reinforced fiberglass laminates to make a well-constructed tank joint that will not deteriorate in a chemical environment."

He says that the type of resin used by the manufacturer is very important. There are three types of resins: general purpose (or orthophthalic resin), used primarily for boat manufacturing and should not be used in a chemical environment; isophthalic resin, which is suitable for most chemical environments; and premium resins, which are available for those chemicals which are highly corrosive.

"Non-gelcoated or non-pigmented tanks tend to yellow due to ultra-violet degradation even though ultra-violet protectants are used," he said. "Gelcoating prevents this reaction to sunlight, and will prolong the life of the tank. Also, tanks with flimsy sidewalls are to be avoided due to probably failure. Weight is a good indicator of structural soundness."

He says that a superior tank

will have an interior that is free of burrs and fibers, and is finished with a final surface coating resin.

Mike Zievers, **Master Sprayers, Inc.**, Ontario, Calif., says that many lawn care businessmen don't pay as much attention as they should to taking care of their spray equipment.

"It is what keeps you in business," he said. "Put grease through the pumps and keep them clean. Match the equipment to the job, don't try to over-extend equipment. Watch for wear. Calibrate correctly." He also suggests using stainless steel or hard stainless steel spray tips.

"They cost more than brass or nylon tips, but you will get less clogging and more wear," he said.

He also suggests using a round tank with mechanical agitation. A round tank of course has no flat spots, and no corners, and this allows for better suspension of fertilizer and pesticides.

He says that mechanical agitation with use of a propeller paddle is better than jet agitation, because "you have to have a pump two to two-and-a-half times what you actually need to recycle with the jet system. The paddle system maximizes your pump's ability."

He also suggests use of low-pressure spray tips and check valves on all spray equipment. He says low-pressure spraying gives better coverage because of droplet size. Check valves stop residual dripping directly after the sprayer is turned off.

"In viewing the lawn care market," Strong said, "I think due to the fast increase in professionalism of lawn care companies in the ways they educate their customers, we are involved in one of the fastest-growing industries in the country."

Henjum said: "We view the market as a good one and certainly a growth market with a lot of potential."

"It does not appear to be limited to homes. There are a lot of commercial applications that tie in equally well and offer good growth potential. It appears the industry and the firms in it are becoming well-organized, and there is a good professional feeling emerging that certainly is a credit to the industry and the people in it. This growing professional approach to the job will certainly go a long way towards building customer confidence in an industry that once may have been characterized as a 'fast-buck' operation."

McGarvey said: "I believe the lawn care industry has enormous growth ahead if the cost to the consumer is not increased above today's prices and the industry attempts to control the entry of 'fly-by-nighters' with some sort of applicator certification and the formation of an association of lawn care operators."

Dountz said: "The lawn care industry, in our opinion, has one of the largest growth potentials of any industry in the country. There are numerous metropolitan areas that are completely untapped."

MARKETING IDEA FILE

Getting new customers by phone



Tom Crowley, 54, began his Lawn Doctor of East Suburbs outside of Cleveland five years ago after a career as a comptroller for a Cleveland firm. He has built his customer list up to 1,000 and hopes to add a 1,000 new customers a year for the next few years.

Although 50 percent of his business is referrals, he uses quite a bit of telephone solicitation to obtain new customers.

He pays \$3.50 an hour and allows his solicitors (usually older women) to work in their own homes. He says the minimum he will allow is two leads turned in an hour, although on good days he might get four. "But I'm happy with three." If the telephone workers cannot meet these standards, he just discontinues their work.

Speaking of the Lawn Doctor equipment, he says: "We have unique equipment, and it allows us to treat each lawn differently." His equipment aerates at the same time it applies granular materials, including grass seed. His program is basically five trips to a lawn in one season, but it can vary. For example, for large estates, he might offer two fertilizer applications and two weed control applications to keep costs down and ultimately get the business. "We try to base it on whatever the customer needs," he told **LAWN CARE INDUSTRY**.

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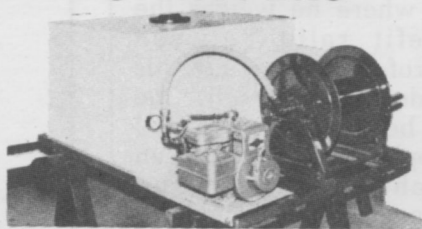
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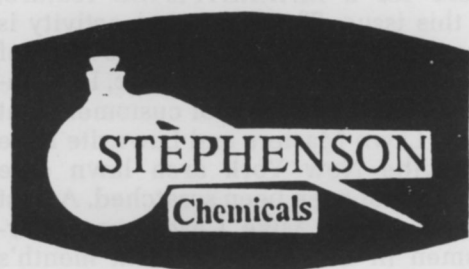
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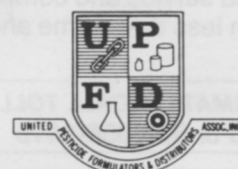


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BEHIND THIS ISSUE



Whew. This has been one of our busiest months since we started **LAWN CARE INDUSTRY** — in a number of ways — and we're taking a few minutes to look back and look ahead as we close the September issue.

We started out the month attending the press conference put on by the Bolens Division of FMC Corp. It was scheduled at the Lake

Geneva Playboy Club, but unfortunately, we only had time enough to check out their new mowers and tractors — not the bunnies.

Then it was on to the New York metropolitan area to interview lawn care businessmen there for a **MARKETPLACE** feature, which begins on page 12 of this issue. The lawn care activity is phenomenal, which is to be expected, since the area is the home of three of the largest lawn care franchises — Lawn Doctor, Lawn-a-Mat and Lawn King. Not to mention the number of customers that companies such as ChemLawn, Lawn Masters and Lawnrite have under contract. And to hear the New York area lawn care businessmen talk, the surface has not even been scratched. At just about the same time, assistant editor Mike Casey was interviewing lawn care businessmen in Baltimore for next month's **MARKETPLACE**.

Then it was on to the national headquarters of Perf-a-Lawn Corp., New Carlisle, Ohio, and the TUCO Division of Upjohn Co., Kalamazoo, Mich. Look for news of Perf-a-Lawn's expansion and some of the thoughts of the TUCO marketing staff in future issues.

And top of all this, your humble editor moved into a new home in the western suburbs of Cleveland — with a lawn that looks like a "before" picture in a herbicide ad. Wish me luck on getting it into shape.

Bob Early

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Consolidated Services	4
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Derby Tiller Co.	4
Essco Mfg.	20
Finn Equipment Co.	18
FMC Corp.	5
Garfield Williamson	8
Hanson Equipment Co.	19
Hercules, Inc.	15
Hill's Liqui-System	14
Hypco Div., Lear Siegler Corp.	20
International Spike	9
Jacobsen Mfg. Co.	23
Lawn Pride	22
Lofts Pedigreed Seed	24
Monsanto	17
Power Spray Technology	6
Rockland Chemical Co.	19
Sierra Chemical Co.	11
Spraying Systems Co.	10
Stephenson Chemical	21
Swift Agricultural Chemical Corp.	7
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