

Brunswick tops Purdue bluegrass rankings

More than 40 named cultivars of Kentucky bluegrasses are available this year, according to Dr. William H. Daniel of Purdue University.

He told LAWN CARE INDUSTRY that more than 70 have been named, and that many experimentals are in tests.

"Currently we have 130 bluegrasses in test plots at Purdue, in addition to our Purdue experimentals," he said. "Also in tests are 60 ryegrasses and 80 fescues."

He said turf managers are blending three to five cultivars available as one way of utilizing the preferred among those available. Seed companies have many mixes, and for a fee, will blend requested cultivars, he said.

In 1972, a cooperative test of 38 bluegrasses was arranged by Penn State's Dr. Joseph Duich as a representative of the Northeast Turf Research group. The test series at Purdue has been maintained at ample nitrogen — three to four pounds of nitrogen per 1,000 square feet per year—with irrigation to avoid drouth, with a cut of one inch or less plus weed killing and crabgrass prevention with herbicides. No fungicides have been used, Dr. Daniel said.

In the period between 1975-79 a series of quality ratings were taken after stress periods of disease so that 10 data were summarized, and then ranked, Dr. Daniel said. Following is the rankings, and main source of the seed. It must be strongly noted that these rankings represent results only at Purdue University in Indiana. Test plots in different parts of the country will yield different results, and this must seriously be taken into consideration by the lawn care businessman. Again, these tests are for only one part of the country. Most seed companies will be happy to forward test results on their varieties in other parts of the country upon request from the lawn care businessman.

Ranked first in the Purdue test was Brunswick, marketed by

PLCAA plans regional seminars next month in Ohio, Maryland, Missouri and New York

Business seminars tailored specifically to the needs of the lawn care businessman are set for next month in four locations around the country.

One-day seminars will be held August 9 in Binghamton, N.Y.; August 8 in Fenton, Mo.; August 5 in Rockville, Md.; and August 14 in Hudson, Ohio.

All seminars are sponsored by the Professional Lawn Care Association of America (PLCAA). Fees are \$10 for PLCAA members and \$15 for non-members. Lunch is included in all sessions.

Prior to August 1, lawn care businessmen can register through PLCAA headquarters by contacting: Jane Stecker, PLCAA,

435 N. Michigan Ave., Suite 1717, Chicago, IL 60611, 312-644-0828. After August 1, persons should contact respective seminar leaders by phone. Those leaders are:

For the New York seminar, Don Burton, president, Lawn Medic, Inc., 1024 Sibley Tower, Rochester, NY 14416, 716-494-1462.

For the Missouri seminar, Paul Schnare, vice president, Atkins Lawn Care, Inc., 1123 Wilkes Blvd., Columbia, MO 65201, 314-874-8000.

For the Maryland seminar, Jerry Faulring, president, Hydro Lawn, 656 Quince Orchard Rd., Suite 603, Gaithersburg, MD 20760, 301-948-5252.

For the Ohio seminar, Gordon Ober, general manager, Davey Lawnscape, 117 S. Water St., Kent, OH 44240, 216-673-9511.

The New York seminar will be held from 10 a.m. until 4:30 p.m. at Holiday Inn, 8 Hawley St., Binghamton. Topics include investment planning and expansion in a recessionary period, lawn care and the pesticide dilemma and an introduction to PLCAA activities.

The Missouri seminar will be held from 10 a.m. until 4 p.m. at Stratford House, 800 S. Highway Dr., Fenton. Topic will be "Managing a Lawn Care Company with the Help of Financial Statements." Speaker will be Dr. Jim Drexler, extension specialist in business and industrial relations at the University of Missouri.

The Maryland seminar will be held from 9:15 a.m. until 4:15 p.m. at the Ramada Inn, 1251 W. Montgomery, Rockville.

Topics include: "Staff — Selection and Training for Sales and/or Service Positions," with J. Roger Finn, president of Antietam Tree & Turf Service, Hagerstown, Md. as discussion leader.

"Liquid Versus Dry Application Techniques." Discussion leaders are Gary L. Mack, president, American Lawn of Maryland, Inc., Walkersville, Md., and

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LAWN CARE INDUSTRY

Serving lawn maintenance and chemical lawn care professionals.

JULY 1980 • VOL. 4, NO. 7 • A Harvest Publication

Turf Seed, Inc., Hubbard, Ore. Ranked second was Plush, from F.F.R., Inc. Ranked third was Touchdown, from Pickseed West, Inc., Tangent, Ore. Ranked fourth was Merit, from O.M. Scott & Sons, Marysville, Ohio. Ranked fifth was Melissa, from O.M. Scott.

Ranked sixth was Monopoly. Ranked seventh was Adelphi, from J & L Adikes, Inc., Jamaica, N.Y. Ranked eighth was Victa, from O.M. Scott. Ranked ninth was Rugby, from Northrup King

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PULSE REPORTS

LCI survey charts first quarter buying

Almost 54 percent of respondents to a recent survey conducted by LAWN CARE INDUSTRY said they spent an average of \$3,206 apiece on dry-applied turf fertilizer during the first quarter of this year — the months of January, February and March.

Almost 12 percent of the respondents said they purchased an average of \$9,607 of liquid-

applied turf fertilizer during the period.

Results for this first quarter "pulse report" are based upon figures submitted anonymously by 180 respondents. This represents a 35 percent response to questionnaires mailed to readers of LAWN CARE INDUSTRY, according to LCI market research

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First quarter buying

PRODUCT	% of sample making purchase	average purchase	projection to LCI readership
Dry-applied turf fert.	53.9%	\$3,206	\$ 17 million
Liquid-applied turf fert.	11.7	9,607	1.1 million
Pre-emergence herbicides	49.4	1,754	8.3 million
Post-emergence herbicides	33.9	1,190	3.9 million
Turf insecticides	28.3	955	2.6 million
Turf fungicides	27.8	623	1.7 million
Turf seed	50.0	1,458	7 million
Irrigation pumps	5.0	3,792	1.8 million
Irrigation sprinklers	17.2	8,124	13 million
Irrigation pipe	16.1	5,071	7.8 million
Irrigation controls	10.0	4,529	4.3 million

Source: LCI Pulse Report

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MEMOS

Lawn care marketing: How do you as a lawn care businessman survey a potential residential market?

One lawn care businessman we spoke with recently looks at it this way. It really does not matter how big a market is, as long as it is not too competitive, and as long as you can get at least \$60,000 worth of production out of a spray truck, or whatever gross you need to keep a unit or a crew going.

He determines the number of single-family homes in any given area, and estimates that 10 percent will never be interested in a lawn care service. Another 10 percent will always be do-it-your-selves. Another five percent will always be what he calls "up-market" homes that will use private gardeners. That leaves an average of about 75 percent of single-family homes that have potential to become customers.

He then says that once the potential dollars to be obtained from "first-users" becomes less than 20 percent that the market should be considered too heavily competitive and might be limited in terms of growth potential.

Leasing for cash-short companies: Equipment leasing has become a way out for more cash-short companies. Railroad equipment and airplanes used to be the mainstays of the business, but leasing has grown to touch almost all segments of industry, says David Woolsey, senior vice president at GATX Leasing. Short-term leases — for as many as five years or so — are growing faster than the big long-term leases, Woolsey says. Short-term items include trucks, trailers, autos, computers, containers and the like.

The American Association of Equipment Lessors estimates that \$150 billion in lease contracts currently are outstanding world-wide. The trade group says this should rise to more than \$200 billion by the mid-1980's. Citicorp Industrial Credit, says its leasing business has grown more than 20 percent in each of the past three years.

Among the advantages of leasing instead of buying: An improved cash flow, the flexibility to replace aging machines with newer equipment and certain tax benefits.

Dutch elm disease cure? A University of Chicago medical student says he might have stumbled across a solution to the Dutch elm disease while attempting to discover a cure for cancer.

William J. Elliott was studying ways of synthesizing maytansine, a potent anti-cancer drug, when he learned a chemical analog of that drug attracts beetles that cause Dutch elm disease in elm trees. An analog is a man-made equivalent of a natural chemical. Elliott and his colleagues say they have developed a method to produce the analog — multistriatin — and that the raw materials are cheaper to buy than gasoline.

He said a vial of the chemical is placed at the base of a tree and the beetles get entangled in fly paper when they venture near the attractive chemical. Josef Fried, the professor directing the research, says enough multistriatin has been produced to attract all the elm tree beetles in North America.

Trees increase home selling price: A poll of realtors and property owners recently indicated that trees may enhance the value of a property by as much as 20 percent, with an average increase of five to 10 percent. This translates to a \$3,000 to \$7,000 jump in its selling price.

This study permits estimates of the net contributions of trees to property values. It is available from: Dr. Brian R. Payne, Hilton House, University of Massachusetts, Amherst, MA 01002.

Bright future for service firms. Service industries — including the growing lawn care industry — had a good year in 1979 and can look forward to a bright future, according to the federal Commerce Department.

While the recent and projected performance of the manufacturing sector generally has been languid, the department said business is booming in service industries. That conclusion, contained in an advance chapter of the department's annual publication, *U.S. Industrial Outlook*, is not completely surprising in light of the growing importance of services in the U.S. economy. The overall growth is illustrated by previous Commerce Department figures showing that the service sector climbed to 43.7 percent of the nation's output in 1978 from 37.2 percent in 1958.

Growing metro areas: The fastest-growing metropolitan areas in the U.S. during the next four years will be the Fort Myers and Cape Coral area in Florida; the Richland, Kennewick and Pasco region in Washington State; and the Brownsville, Harlingen, San Benito area in Texas, says a study by *Sales & Marketing Management* magazine.

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MEETING DATES

American Sod Producers Association Summer Convention & Field Days, Four Seasons Hotel, Edmonton, Alberta, Canada, July 20-22. Contact: American Sod Producers Association, 9th & Minnesota, Hasings, NE 68901, 402-463-4683.

Ohio State University Turfgrass Research Field Day, Turfgrass Research Center, Ohio State University, Columbus, Ohio, August 5. Contact: Keith Karnok, OSU Department of Agronomy, 1827 Neil Ave., Columbus, OH 43210, 614-422-2591.

Illinois Landscape Contractors Association Annual Summer Field Day, Chicago Horticultural Society Botanic Gardens, Glencoe, Ill., August 6. Contact: Lucile Little, ILCA, 202 W. Maine, Box 1049, St. Charles, IL 60174, 312-5845770.

1980 Rutgers Turfgrass Research Day, New Brunswick, N.J., August 6. Contact: Ralph E. Engel, P.O. Box 201, New Brunswick, NJ 08903, 201-932-9427.

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.

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, ex-

ecutive 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.

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, 614-8859588.

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.

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, Con-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 State, MS 39762, 601-325-3138.


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.

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.

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

ALCA Annual Meeting & Trade Exhibit, Hyatt Regency, New Orleans, La., February 8-13, 1981. Contact: John Shaw, executive director, Associated Landscape Contractors of America, 1750 Old Meadow Road, McLean, VA 22101, 703-893-5440.

50th Annual Massachusetts Turfgrass Conference & Industrial Show, Springfield Civic Center, Springfield, Mass., March 3-5, 1981. Contact: Joseph Troll, Department of Plant and Soil Sciences, Stockbridge Hall, University of Massachusetts, Amherst, MA 01003, 413-545-2353.

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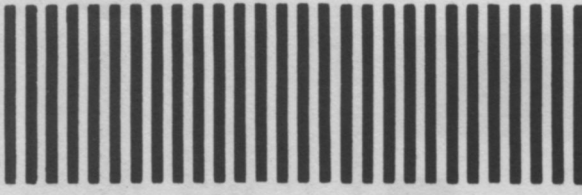
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1.

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



2.

"Consumer education . . . informing potential customers of the advantages of lawn care and the importance of putting the proper care of lawns into the hands of dedicated, trained, skilled professionals."

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.

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



5.

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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



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Thatch control important in overall turf management program

Recent research indicates that some pesticides may have a marked effect on thatch accumulation. As reported in *Agronomy Journal*, Dr. Richard W. Smiley, assistant professor of turfgrass pathology at Cornell University, with research support from M.M. Craven, conducted a study to determine the effects of fungicides on thatch and pH.

After testing 14 fungicides and one nematicide on Kentucky bluegrass turf through three seasons of application, Dr. Smiley concluded that different fungicides induce significant variations on thatch accumulation, with some spurring significant accumulation while others cause little or no accumulation.

"Our results indicate that decomposition of thatch was possibly impeded through the inhibition of microbial activities by unfavorable pH environment and/or by direct toxicity of the fungicides," Dr. Smiley told **LAWN CARE INDUSTRY**.

He says that decomposition of sulfur-bearing fungicides contributed sufficient acidity to inhibit the decomposition of thatch and these acidification processes explain the magnitude of thatch accumulation in most instances.

"In this study, the combined application of ethyl thiophanate and thiram contributed the highest sulfur amounts. It would require about three pounds of lime per 1,000 square feet per year to neutralize the acidity contributed to soil by this fungicide program," he said.

Thatch depth measurements where the combination of thiram and ethyl thiophanate were applied showed a thatch depth of 18.4 millimeters and a pH level of 5.7. Non-treated control grass showed a 6.3-millimeter thatch depth and a pH of 6.3.

But, Dr. Smiley points out, acidification is not responsible for thatch accumulation in plots treated with non-sulfur-bearing fungicides, which displayed thatch depths of 13.8, 17.0 and 16.1 millimeters, respectively, while showing pH levels above 6.0.

"For these treatments, it appears that direct toxicity towards the microflora is more important than indirect suppression through acidification of soil," he said.

In contrast to these fungicide treatments resulting in significant thatch accumulation, turfgrass treated with other fungicides such as cyclohexamide (Acti-dione TGF), cyclohexamide plus quitozene

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COST CUTTINGS

How to prevent employee pilferage

On Tuesday, you notice that two bags of fertilizer are missing from a storage area. On Thursday, a weed-eater disappears. Assorted tools, chemicals and office equipment also have recently vanished at an alarming rate. You, like many lawn care operators, have an employee pilferage problem. What can you do about it?

Saul D. Astor, president of Management Safeguards, Inc., New York, N.Y., says, "To prevent pilferage, an owner manager must recognize that some employees cannot be trusted and make all employees aware that he or she is taking steps to thwart dishonest personnel. Such steps include setting up a system of loss prevention (devices and procedures), administering the system rigidly and auditing it often to discourage dishonest employees who try to bypass the system."

Astor recommends a number of guidelines for reducing employee pilferage including:

- All padlocks should be snapped shut on hasps when not in use to prevent the switching of locks.
- Keys to padlocks should be controlled. Never leave the key hanging on a nail near the lock where a crooked worker can "borrow" it and have a duplicate made while he or she is away from work.
- Trash should not be allowed to accumulate in, or be picked up from, an area near storage sites of valuable materials (fertilizers, chemicals, mowers, etc.).
- Inspect disposal locations and rubbish trucks at irregular intervals for the presence of salable items when you have the slightest reason to suspect collusion between employees and trash collectors.
- Trash pickups must be supervised. Companies have been systematically drained over long periods by alliance between crooked employees and trash collectors.
- Control receiving reports and shipping orders (preferably by numbers in sequence) to prevent duplicate or fraudulent payment of invoices and the padding or destruction of shipping orders.
- Receiving reports should be prepared immediately upon receiving a shipment. Delay in making out such reports can be an invitation to theft or, at best, result in record keeping errors.
- Employees who are caught stealing should be prosecuted. Settling for restitution and an apology is inviting theft to continue.
- Never assign two or more members of the same family to work in the same area. You can expect blood to be thicker than company loyalty.
- Make a dependable second check of incoming materials to rule out the possibility of collusive theft between drivers and employees who handle the receiving.

Astor's comments are excerpted from a Small Business Administration pamphlet entitled "Preventing Employee Pilferage." For a free copy of the pamphlet write P.O. Box 15434, Fort Worth, TX 76119.



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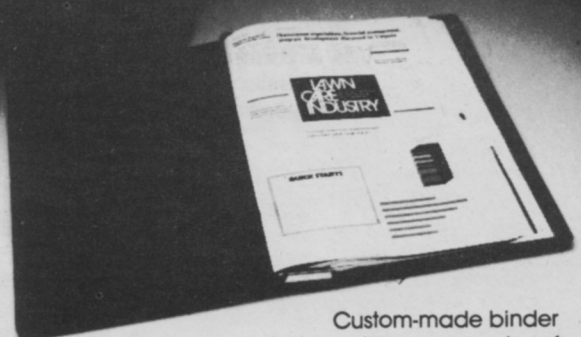
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NEWSMAKERS

John M. Berggren is owner of **Lawn Maker**, Staten Island, N.Y.

Thomas Goodwin is owner of **Greenfield Landscape**, Greenfield, Mass.

Teledyne Wisconsin Motor, Milwaukee, has appointed Ronald A. Kruger to the position of manager of marketing administration, replacing the retiring Norman J. Burns.

John Craigie has joined **Theodore Brickman Co.**, Long Grove, Ill., landscape contractors, as director of sales and marketing. Craigie was formerly vice president of sales and marketing for **Sears Lawn & Leaf**, Wheeling, Ill. In his new post, Craigie will be in charge of sales management for all of Brickman's divisions, including landscape architecture, contracting, maintenance and tree care, according to Dick Brickman, president of the company.

John F. Cantwell is a serviceman for **Truly Nolen Exterminating Co.**, Kissimmee, Fla.

Paul R. Blum has been appointed account executive for the **Kohler Co.**, Engine Division, Kohler, Wis. Mike Edwards has been named area manager for the division, calling on distributors and original equipment



Edwards



Weber

manufacturers in Texas, Louisiana, Mississippi, Oklahoma, New Mexico, Colorado and parts of Nebraska, Wyoming and Arkansas. Brian Weber has been named area manager, working with distributors and original equipment manufacturers in Minnesota, Iowa, Nebraska, South Dakota and North Dakota.

Bob Parker is owner of **Personal Touch Lawn Care**, Dallas, Texas.

Lee R. Brookhart is owner of **Lawn Doctor of New Castle**, Wilmington, Del.

George J. Schaefer, Jr. has been elected president of **F.D. Kees Mfg. Co.**, Beatrice, Neb. He succeeds his father, George J. Schaefer, Sr., who will continue as chairman of the board of directors and chief executive officer.

James W. Williams is a partner in **Earth Lawn Care & Construction Co.**, Toledo, Ohio. The company offers chemical lawn care and mowing/maintenance.

Robert Snow is manager of **Lawn Pro, Inc.**, Charlton, Mass. The company offers chemical lawn care.

Ray Klubnik is president of **All Organic Lawn & Garden, Inc.**, North Royalton, Ohio.

George J. Raymond has been promoted to product manager, responsible for the development and marketing of Antor, Herban,

and Deltic pest control products, for **Boots Hercules Agrochemicals Co.**, Wilmington, Del.

Saul Winitz is president of **Lawn Doctor of South Plainfield**, Freehold, N.J.

William F. Reed is owner of **Bay Area Landscapes**, Hayward, Calif.

Joseph Marteau is owner of **Jay's Lawn Service**, St. Louis, Mo.

Steven Lock has been appointed regional credit manager for the Outdoor Power Equipment Division of **J I Case**, Winneconne, Wis.

Richard Duddy is owner of **Lawn King of Southwest Roanoke**, Roanoke, Va.

Karson Edgar is owner of **K.E.E. Grounds Maintenance and Landscaping**, Jackson, Miss.

Carl L. Poindexter has been named chief of plant security for the **Jacobsen Div. of Textron, Inc.**, Racine, Wis.



Poindexter



Allenbrand

Gary L. Allenbrand has been named manager, regional sales, for turf products, for the **Jacobsen Div. of Textron, Inc.**, Racine, Wis. He will handle Oregon, Washington, Montana, Idaho, Utah, Wyoming, Colorado and the Canadian provinces of British Columbia and Alberta.

James W. Adams has been promoted to the new position of senior vice president of Interna-

tional Operations for **The Toro Co.**, Minneapolis. He has been group vice president, heading Toro's irrigation operations, based in Riverside, Calif.

Rick White, president of **Village Green Lawn Spraying**, West Chicago, Ill. has announced three new franchise dealers for his company: Greg Daleiden is based in Geneva, Ill., Ron Bantz is based in Bloomington, Ill., and Jerry Mykietka is based in Glen Ellyn, Ill.

Todd L. Cutting is in the product support/field development department for **TUCO, Div. of the Upjohn Co.**, Kalamazoo, Mich.

S. Gary Custis is regional agronomist for **ChemLawn Corp.**, based in Creve Coeur, Mo. ChemLawn is based in Columbus, Ohio.

Robert Zwart is president of **Indiana Turf Equipment Corp.**, Indianapolis.



TOOLS, TIPS & TECHNIQUES

Pruning extends the service life of trees

Proper tree pruning not only enhances the natural beauty of a landscape, but also extends the service life of trees, both important considerations for landscape maintenance personnel. The two primary reasons for pruning a tree, according to Dr. T. Davis Sydnor, are to preserve plant health and to influence tree growth and development.

Sydnor, head of the Ohio Shade Tree Project for the Ohio Agricultural Research and Development Center in Wooster, Ohio, said pruning to maintain tree health should be done whenever it is deemed necessary.

For instance, dead stubs should be removed immediately because they serve as an excellent entry point for disease organisms, and once a disease organism becomes established in a tree, it is extremely difficult to control. A second method of preventing disease and insect encroachment is to prune crossing branches which are chronically rubbing together.

Further, water shoots and suckers (vigorously growing shoots that occur on the main stem or base of a tree) should be removed because they are easily damaged by storms.

Pruning to enhance the development of an attractive crown is important during the first 10 to 15 years after the tree is planted, according to Sydnor. Limbs should be properly spaced so major branches intersect the trunk at least six to 12 inches apart. Branches should be selected in a more or less spiral pattern so the crown can develop evenly.

Branches that diverge from the main stem at less than a 40-degree angle should be removed. The frequency of this type of branch growth will vary from species to species.

Developmental pruning also includes removal of interior branches. Branches initiated on the interior of the tree receive little light. As light levels continue to decrease, branches grow slower and slower until they eventually die. Interior branches suffering from this "natural pruning" should be removed to allow better air circulation within the plant. Interior pruning also reduces the chances of disease encroachment or storm damage.

Properly pruned trees should not need re pruning for at least three to five years, Sydnor added. Middle-aged trees can go long periods without pruning. However, young trees require developmental pruning to insure a well developed crown.

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RANKINGS *from page 3*

Co., Minneapolis. Ranked 10th was Cheri, from Jacklin Seed Co., Post Falls, Idaho.

Ranked 11th was Sydsport, from E.F. Burlingham & Sons, Forest Grove, Ore. Ranked 12th was Vantage, from O.M. Scott. Ranked 13th was Parade, from Northrup King Co. Ranked 14th was Kenblue. Ranked 15th was Glade, from Jacklin Seed Co.. Ranked 16th was Baron, from Lofts Pedigreed Seed, Inc., Bound Brook, N.J. Ranked 17th was Park. Ranked 18th was Bonnieblue, from E.F. Burlingham & Sons. Ranked 19th was Fylking, from Jacklin Seed Co. Ranked 20th was Merion.

Ranked 21st was Granada, from Northrup King Co. Ranked 22nd was Enoble, from Van Engelen E. Ranked 23rd was Majestic from E.F. Burlingham & Sons. Ranked 24th was Entopper, from Van Engelen E. Ranked 25th was Windsor, from O.M. Scott. Ranked 26th was Delft, from Cebeco E. Ranked 27th was Geronimo, from Pickseed West, Inc. Ranked 29th was Campina. Ranked 30th was Pennstar.

Dr. Daniel said that shade tolerance is claimed for Glade, Nugget, A-34 and Bristol. Nugget is slow-growing and a poor competitor, he said. Resistance to leaf spot and powdery mildew plus low growth character would improve shade tolerance of a cultivar, he said. Several faster-growing types include Wabash, Parade and Touchdown.

Dr. Daniel said that *Fusarium roseum* develops in older mature turf, therefore it takes some time to prove resistance, so research is limited.

A low ranking in these tests or any other tests does not necessarily mean that there is that much difference between varieties, because most rankings of this nature are based upon very fine gradations. Traditionally, there are groupings of varieties which perform very close to the same. For further information about these tests, Dr. William H. Daniel, Department of Agronomy, Purdue University, West Lafayette, IN 47907, 317-749-2891.

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MONEYWISE

Saving yourself on big bid mistakes

Clinton County, Michigan, had gone to bid on a project and was requiring the bids to be bonded. The low bidder came in \$550,000 below the next lowest bid and \$90,000 under the county's estimate. The bidder claimed he had made a mistake before the award but he did not withdraw the bid. Neither did he make any effort to prove the nature of the mistake.

Instead, he tried to convince the county that he should be allowed to increase the price but still keep the job. The county accepted the bid and demanded the contractor sign the contract for the bid price. The contractor then attempted to withdraw the bid and refused to enter into a contract, again claiming mistake.

The county sued the contractor and his bonding company and won, according to a recent report in *Professional Landscape Contractor*.

In the kind of factual situation presented here, there is no completely safe way to avoid being bound or, alternatively, having to pay the amount of the loss to the contracting authority. As a general rule, courts will not relieve a mistake when it is made by only one party (that is, a unilateral mistake). On the other hand, where the discrepancy is so great that the contracting authority knew, or should have known, that there was a mistake, the court will not let the contracting authority take an unfair advantage (unjust enrichment).

If a contractor is caught in such a situation he simply cannot have it both ways. In this case, being greedy cost the contractor more than just the difference between the bids.

When faced with these kinds of facts, the contractor should withdraw the bid immediately, before it is accepted. He should then (no later than the next day) show proof that there was a mistake and how much it amounted to.

At the same time he should start to build any documentation that he can show that the contracting authority knew or should have known that there was a substantial mistake and that, if they were permitted to accept the bid, they would be "unjustly enriched."

PULSE REPORTS from page 1

manager Clarence Arnold.

The results in the spray-applied fertilizer category would project to \$17 million worth of purchases by the total readership of LAWN CARE INDUSTRY, Arnold said. The results in the liquid-applied fertilizer category would project to \$11 million worth of purchases for the first quarter.

In the pre-emergence herbicide category, 49.4 percent of the respondents said they purchased an average of \$1,754 worth of product, for a readership projection of \$8.3 million.

In the post-emergence turf herbicide category, 33.9 percent of the respondents said they purchased an average of \$1,190 worth of product, for a readership projection of \$3.9 million.

In the turf insecticide category, 28.3 percent of the respondents said they purchased an average of \$955 worth of product, for a readership projection of \$2.6 million.

In the turf fungicide category, 27.8 percent of the respondents said they purchased an average of \$623 worth of product, for a readership projection of \$1.7 million.

In the tree insecticide category, 31.7 percent of the respondents said they purchased an average of \$557 worth of product, for a readership projection of \$1.7 million.

In the 10-20 h.p. tractor category, 10 percent of the respondents said they purchased an average of \$3,775 worth of product, for a readership projection of \$3.6 million.

In the 20-30 h.p. tractor category, five percent of the respondents said they purchased an average of \$10,051 worth of product, for a readership projection of \$4.8 million.

In the rotary self-propelled mower category, 22.2 percent of the respondents said they purchased an average of \$2,269 worth of product, for a readership projection \$4.8 million.

For further information on other categories, contact Clarence Arnold at LAWN CARE INDUSTRY, 9800 Detroit Ave., Cleveland, OH 44102, 216-651-5500.



Diagnosing and treating iron chlorosis in turf, ornamentals

Iron is an essential element for plant growth. Thus, all plants are susceptible to iron deficiency. Where the amount of iron available to plants does not meet their minimum needs, the plants fall into a diseased condition called iron chlorosis, according to Don Blasingame of Mississippi State University.

"Iron chlorosis may occur anywhere in the United States, but it is most likely to occur in the western half of the country and on the sandier soils of the southeastern part of the country," he said.

Iron chlorosis in plants is characterized by blanching or yellowing of the leaves, he said. This change in the appearance of

the leaves is due to failure of chlorophyll to develop normally.

Mildly affected plants become unsightly and grow poorly. Severely affected plants fail to grow flower or fruit. Very severely affected plants die from lack of iron.

In deciduous plants, areas between leaf veins become light green, yellow or white. The greater the iron deficiency, the more pale the areas. The leaf veins ordinarily remain green. In very severe cases the edges of the leaves, or entire leaves, turn brown and the plants often die.

Iron chlorosis occurs in susceptible plants wherever and whenever iron is not available to

them. The condition is often due to high pH, which makes it possible for other elements to interfere with the absorption of iron, rather than to lack of iron in the soil.

Two principal types of iron-containing compounds used to furnish iron to plants are: iron chelates and inorganic compounds containing iron in soluble form (ferrous sulfate).

Iron chelates are organic compounds containing iron. The iron remains available to plants when the chelates are placed in the soil. The iron in chelates costs much more per pound than the iron in ferrous sulfate, but the amount of chelates required for control of chlorosis is much smaller than the required amount of ferrous sulfate. Iron chelates are marketed under various trade names and in various formulations. Some are applied to soil, others to foliage.

Ferrous sulfate and similar

compounds that contain inorganic iron furnish soluble iron to plants. However, when they are applied to the soil, much of the applied iron becomes unavailable to plants. Consequently, applications must be much in excess of amounts actually required by the plants.

For turf areas, Blasingame says to choose between applying ferrous sulfate in solution or applying it in dry form, then watering it in.

For the first method, dissolve ferrous sulfate in water at the rate of one pound of the chemical to 25 gallons of water (a stronger solution could burn the grass). Apply at the rate of 12.5 gallons of solution to 100 square feet of turf.

For the second method, spread dry ferrous sulfate on the grass when the grass is dry; spread it evenly with a fertilizer spreader. Apply at the rate of 0.5 pound of the chemical to 100 square feet of turf. Give the area a good watering immediately after the application; this is necessary to keep the chemical from brown-

"I wish my quarterbacks were as durable as this John Deere Tractor."

Coach Dan Spadoni, Dollarway High School, Pine Bluff, Ark.

Last season, Coach Spadoni had all four of his quarterbacks out at one time or another with injuries.

But his John Deere 850 Tractor never missed a day's work.

"In the two years we've had it, we've used it to mow both of our football fields, the practice field and the grounds around the school," says Coach Spadoni.

"And we've never had any problems. Even opposing teams have told us ours is the best field they've played on."

Which, of course, is why Coach Spadoni and School Superintendent James Matthews decided to buy a John Deere 'Little-Big' Tractor in the first place.

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They were looking for a tractor big enough to handle

a large-acreage mowing job. Yet small enough so it would be economical to buy and operate.

The 22-PTO-hp* John Deere 850 filled the bill on both counts.

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Iron chlorosis is often due to high pH, which makes it possible for other elements to interfere with the absorption of iron in plants and turf. Two materials effective in combating the condition are iron chelates and inorganic compounds containing iron in soluble form (ferrous sulfate).

ing the grass.

For treating foliage, quick, but short-lived results are obtained by spraying ferrous sulfate solution on the foliage of plants affected with iron chlorosis. The amount required is much smaller than that required for application to the soil. However, if chlorosis is severe, frequent applications to foliage are required to keep plants green and healthy.

To prepare 50 gallons of spray, dissolve two pounds of ferrous sulfate in 50 gallons of water (a stronger solution would burn some plant varieties). Add two cups of a wetting agent to increase the effectiveness of the spray.

Then prepare three gallons of spray, dissolve two ounces of ferrous sulfate in three gallons of water and add two tablespoons of wetting agent, or the recommended rate.

Spray treatments can begin any time during the growing season, but are most effective when started early in the season. More than one treatment may be necessary during a season. Spray at two-to-four-week intervals until symptoms disappear; then spray whenever symptoms reappear. Blasingame wrote in a recent edition of the newsletter of the Mississippi Turfgrass Association, based on information from the U.S. Department of Agriculture.



About 350 people recently attended a field day sponsored by Excel Industries, Inc., Hesston, Kansas. Called "Optimistic Day," the outing included an Excel plant tour, pig roast with all the trimmings, golf tournament and equipment demonstration. Those attending included city and state officials, golf course superintendents, school board officials, mowing maintenance businessmen, businessmen and other prospects. (Above) Excel Advertising and Promotion Manager David Welfelt describes the company's newly introduced Model 261 mower. The mower features an 18-horsepower Briggs & Stratton engine and a three-way deck which offers side-discharge, rear-discharge and mulching modes.

LANDSCAPE MAINTENANCE

How much does it cost to operate mowing equipment?

by R.K. Reynolds, Extension specialist, Virginia Tech.

Mowing equipment is probably the single most important capital investment of any grounds maintenance firm. The annual cost associated with this investment is likely to be a significant part of the total cost of doing business. Therefore, landscape maintenance professionals should continually evaluate the machinery costs for various mowing jobs and take the appropriate steps to reduce these costs.

Machinery budgeting is an appropriate tool businessmen can use in evaluating the costs involved in operating a mower.

The examples that follow illustrate the use of machinery budgets in estimating the annual cost of a self-propelled gang mower and a 58-inch power riding mower.

The form used provides an easy-to-follow set of steps that lead from the purchase price to the total cost per year and the total cost per hour of use. Most of the data consists of hard facts or else require management to make reasonable estimates.

Having estimated the total costs, the effect of increasing or decreasing the volume of use can be evaluated. Note that total fixed or ownership costs consisting of depreciation and inter-

FUNGICIDES

EPA lifts restriction on Arbotech treatment for Dutch elm disease

Elm owners who have injected their trees with Arbotech 20-S systemic fungicide to prevent Dutch elm disease can continue treatments this year, in spite of an earlier EPA restriction banning use of the product for more than two consecutive years.

The reason for the initial restriction, passed two years ago when the fungicide was first registered, was to allow more time for research into the long-range effects of continuous annual treatments. Since subsequent testing has shown no significant problems, the earlier restriction has been dropped.

Dr. John Shriver, MSD AGVET field biologist, has participated in extensive tests studying the effects of repeated fungicide treatments during the past two years. "To date, we have found no discoloration of leaves from repeated doses, but have noted some internal discoloration," he says.

In part, internal discoloration occurs because treatments call for drilling several holes at the base of the elm in order to inject the fungicide. This damage can be minimized, says Dr. Shriver, by following these recommendations when treating trees:

- Make injection holes as small as possible, yet large enough to permit an adequate flow of fungicide. Approximately one-fourth- to three-sixteenths-inch in diameter is adequate.
- Do not drill holes excessively deep into the trunk. One-half to three-fourths-inch is sufficient.
- Always sterilize drilling and other equipment after each treatment.
- Avoid excessively high pressure. Usually, good results can be obtained with 10 to 20 pounds of pressure, or by gravity feed.
- Drill holes as close to the ground as possible.
- Do not drill holes in Valleys between root flares because this area is slow to close over.

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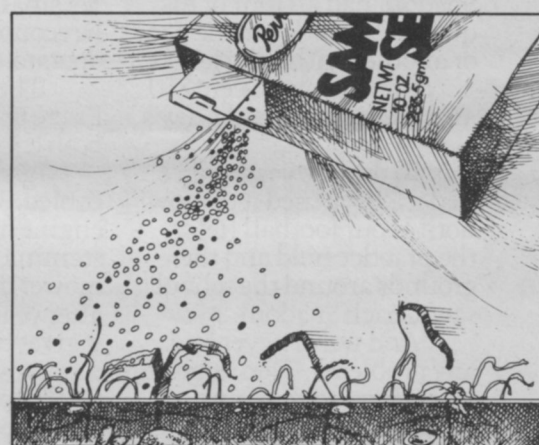
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In a matter of days, Roundup circulates throughout these weeds. Even into the below-ground roots, destroying the entire plant. Yet Roundup has no residual soil activity. That means there is no injury to new seedlings planted after application.



Spread Pennfine Perennial Ryegrass seed over the area treated with Roundup.

After applying Roundup, seed with fast-growing, fine-leaved Pennfine Perennial Ryegrass. Pennfine was developed by Dr. Joe Duich at Pennsylvania State University. Pennfine has been proven to germinate quicker, grow denser, and resist disease better than traditional ryegrasses. And it penetrates compact soil, sending its roots to depths of 12 to 18 inches. These qualities make Pennfine an excellent choice for turf renewal and help to explain why it's used by turf professionals from coast to coast. In a short time, you'll see the proof for yourself.

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est (combined as cost recovery), insurance, taxes and housing remain the same regardless of how much or how little use is made of the mower.

However, total operating costs have a direct relationship with the level of mower use. Therefore, while total fixed costs remain the same, the total fixed cost per hour decreases as the mower is more extensively used.

Total operating costs increase with greater use and decrease with lesser use, but total operating costs per hour will remain about the same, regardless of use. In the illustration, if the gang mower was operated 1,000 hours rather than 600 hours, total fixed cost per hour would decrease from \$7.38 per hour to \$4.43, and total cost per hour would drop from \$11.54 to \$8.59.

Conversely, if the power rider mower was used less than 500 hours annually, say 300 hours,

ESTIMATE OF ANNUAL MACHINE COST			
Line	Item	Self-Propelled Gang Mower	58" Power Rider Mower
1.	Purchase Cost	\$17,000	\$ 2,860
2.	Salvage Value	0	0
3.	Cost To Be Recovered (Line 1 — Line 2)	\$17,000	\$ 2,860
4.	Estimated Years of Life	7	3
5.	Estimated Annual Use	600 hours	500 hours
Fixed or Ownership Costs:			
6.	Factor for Cost Recovery and Interest (From standard annuity table)	.2404	.4380
7.	Cost Recovery and Interest (Line 3 x Line 6)	(7 yrs. @ 15%) \$ 4,087 ¹	(3 yrs. @ 15%) \$ 1,235 ¹
8.	Interest on Salvage Value (Line 2 x interest rate)	—	—
9.	Insurance, Taxes, Housing	340	57
10.	License	—	—
11.	Total Fixed Cost (add Lines 7 thru 10)	\$ 4,427	\$ 1,310
12.	Fixed Cost Per Hour (Line 11 ÷ Line 5)	\$ 7.38	\$ 2.62
Operating Costs:			
13.	Fuel (gal./hr. x hrs. of use x price/gal.)	\$ 975 (1.3 x 600 x \$1.25)	\$ 188 (.3 x 500 x \$1.25)
14.	Oil, Grease, Anti-Freeze	120	20
15.	Repairs (including service labor)	1,400	100
16.	Total Operating Cost (add Lines 13 thru 15)	\$ 2,495	\$ 308
17.	Operating Cost per Hour (Line 16 — Line 5)	\$ 4.16	\$ 0.62
18.	TOTAL ANNUAL MACHINE COST (Line 11 + Line 16)	\$ 6,922	\$ 1,618
19.	TOTAL COST PER HOUR (Line 18 ÷ Line 5)	\$ 11.54	\$ 3.24

total fixed cost per hour would increase substantially (to \$4.37) and total cost per hour would be significantly greater (\$4.99).

To buy new or used equipment or lease a particular mower can be an important decision and have a major impact on machinery costs. When to replace machinery is also a critical decision that will often greatly influence business success or failure.

The preparation of Estimates of Annual Machine Cost for both new and used machines will help management determine which is the better buy. Comparison of total fixed plus repair costs, with the cost of leasing the same mower, will allow management to determine break-even rental rates.

With regard to labor-saving machinery, the total annual machine cost (line 18) divided by the labor cost per hour, will indicate the hours of labor necessary to save each year to justify the annual machine cost.

Similarly, dividing the total annual machine cost for a labor-saving machine by the hours of labor estimated to be saved will reveal the break-even labor cost per hour that could be paid before purchasing the machine.

THATCH from page 6

(Acti-dione RZ), Captan, anilazine (Dyrene) and chlorothalonil (Daconil 2787) showed minimal thatch accumulation and pH levels not significantly different from the check areas.

Dr. Smiley says that too often fungicide choice is made only by taking immediate cost and target pathogens into consideration, without considering the long-term effects which the fungicide may have.

"The long-term effects of these fungicides are far more important to the overall economy of management programs and to turfgrass quality than the short-term cost and fungitoxic-spectrum considerations,"

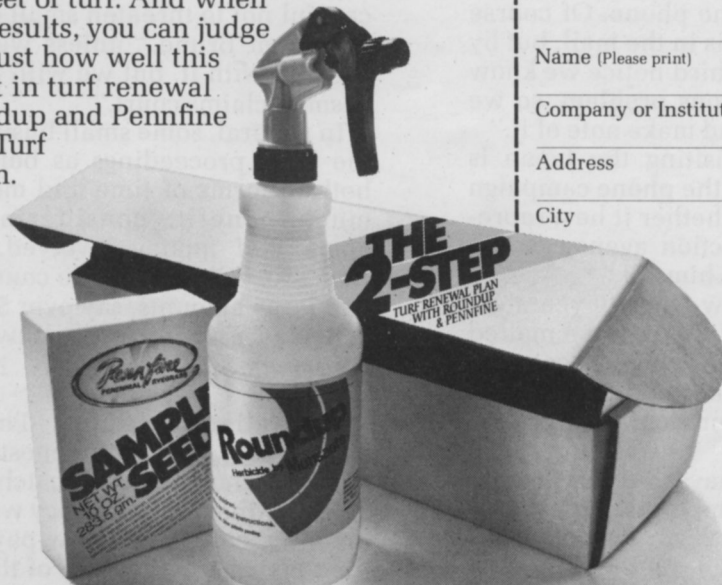
"Whenever possible, lawn care businessmen should attempt to utilize the most economical long-range maintenance program," he said.

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Inside the industry

What to do when slow pay becomes no pay

Professional lawn care, once a luxury afforded only to the independently wealthy with their private gardeners and groundskeepers, has, like those former luxuries, TV and backyard swimming pools, become a middle class necessity.

Now, for a reasonable fee, virtually anyone can have their lawn chemically and mechanically treated by a smiling professional. However, nothing will wipe the smile off that face faster than a customer who is slow in paying his lawn care bills.

Of course, since lawn care service is a matter of choice, customers would seem to be more inclined to pay their lawn care bills, as opposed to bills for necessities such as gas and electricity, which most people let slide from time to time.

Indeed, this does seem to be the case in many instances, with some lawn care businessmen stating losses of less than one percent of their total gross income to slow-paying customers.

Allan LaBertaux, of Lawn Groomer of Muncie, Ind., attributes this low rate of profit loss to the relatively high income status of his customers. "We're working with the right class of people, and it just works out that the people who are conscious about the looks of their property are the ones who pay their bills."

"People will pay for things concerned with their home," says Earl Sinnamon, president of Swingle, Inc., Denver, Colo. "In general, collections for this type of work are pretty good."

The lawn care business is not immune to the slow pay problem, however. All lawn care businessmen are faced with late-paying customers from time to time, and the methods they use to handle collections are quite varied:

Collection notices: Collection notices, whether personalized letters or merely computer-printed invoices, are probably the most widely used method of contacting slow payers. Ranging from mild reminders to statements of proposed court action, these notices can be very effective in bringing in dallying accounts.

Tom Brune, of Atwood Lawn Spray, Sterling Heights, Mich., uses a four-part notice that is automatically printed out as the computer scans customer routes following delivery of the bills.

"The top layer of the notice is a very mild reminder," says Brune. "The second is a little bit more direct, the third is downright nasty, and the fourth one is the one used for collection procedures if it gets that far."

Lawn care businessmen disagree as to the effectiveness of using such collection notices. Brune is one who is usually satisfied with the results of his mailings. "If the computer kicked out 100 people who

were overdue and we mailed all 100 first notices, we'll probably get 80 to 85 responses within 10 days."

Presenting the other side of the issue is Jim Shade of Perf-a-Lawn, Hilliard, Ohio. "If an account goes so long, if they've made two commitments to pay and they've failed, I think you know it's going to be a long-term thing, so a letter isn't going to be that effective."

Phone calls: Contacting the customer by phone is another method almost universally used by lawn care companies. It is usually more successful than mailing out notices, probably because of the personal contact made with the customers. Indeed,

"In the dead of winter, what can I say to a person who says, 'My weeds didn't die, and therefore I am not paying?' My only recourse to that is to go to court and what chance do I have in the dead of winter? The following spring, the effectiveness of the fertilizer is gone, and the lawn looks shabby anyhow." — Tom Brune, Atwood Lawn Spray, Sterling Heights, Mich.

some collection agencies use no other method than an aggressive phone campaign.

"If the customer doesn't respond to our second notice," says Brune, "We wait 30 days and then get on the phone. Of course they tell you the check is in the mail, but by the time we get to the third notice we know we've got a really serious problem, so we listen to their excuse and make note of it."

Personal contact: Visiting the home is usually the next step if the phone campaign proves unsuccessful, whether it be a representative from a collection agency or the lawn care businessman himself.

"We pretty well know from 10 years experience, that by the time we have mailed out the last copy we're probably going to end up collecting this account in the dead of winter by knocking on doors," says Tom Brune.

Surprisingly, Brune says, most customers write him a check immediately, no questions asked. "If I knock on 10 doors, I'll collect five, two will tell me they'll mail a check, and they will, and three I won't collect from no matter what they tell me.

But it goes on, every year it's the same way."

Financial hold: In conjunction with collection notices, phone calls, etc., many companies place a hold on services, refusing to spray a customer's lawn until he has paid for the previous application.

Charles Austin, president of Liqui-Lawn of Hygiene, Colo., has a very high response rate of 85 percent when he informs customers that a hold is to be placed on their accounts. "Surprisingly, with people who from round to round haven't paid, just saying that they won't get the next round brings a check."

With the 1980 economy in such dire straits, Tom Brune has changed his policy with regard to financial hold, opting rather to cancel the accounts of chronic slow payers. "For 1980, if we find that a customer needs to have a second notice mailed to them, and they have a history of being sent overdue notices, we consider that customer cancelled." Brune has not always followed such a hard-line policy, but with the economy the way it is, lawn care businessmen can ill afford to allow slow payers to keep hanging.

Liqui-Lawn has a unique method of dealing with customers who let their accounts drag on through the winter months unpaid. "Those who carry on through the winter we send our spring newsletter," says Charles Austin, "but we'll write down at the bottom that we can't continue their service for the following year unless we receive a check for last year's bill. It brought in a lot of money this spring and cleaned the problem almost all up."

Court action: Taking slow-paying customers to small claims court is also a possibility, but one that is viewed as a last resort by some businessmen. "We're very careful not to threaten small claims court," says Tom Brune, "unless we intend to go through with it, but we will. We have gone to small claims court."

In general, some small businessmen view the legal proceedings as being too costly, both in terms of time and money, to be of much benefit, considering the small amount of money involved, usually less than \$50. "We've gone to court when we've had large amounts, say over \$50, and we've collected. But it's long, drawn-out, expensive and breeds a lot of ill will," says Brune.

Collection agencies: The collection agency may well be the most controversial of all methods used to catch slow payers. The way the typical agency works is by contacting a company's slow-paying accounts, then taking a percentage of the money they collect.

For the lawn care businessman, half the

payment is better than no payment in many cases, but most operators exhaust all possible in-house efforts before turning the account over for collection.

"You're paying a percentage of money that you deserve to somebody who has absolutely nothing to do with your line of work. It would have to be a pretty severe situation before I'd use one," says Lawn Groomer's LaBertaux.

Although Steve Nuss, president of Highland Park Lawn Co., Grand Island, Neb., has used a collection agency on occasion, he wouldn't recommend the use of this method, for reasons of cost, and promoting a good company image.

"If you allow your customer to get into that kind of situation, it's too late for collection. If you have a terrific amount of collections it means that you're not doing the work correctly or selling the product correctly. Maybe you should look for clients with more money."

Perf-a-Lawn's Jim Shade says he feels that a collection agency can be a good way to collect late payments and recommends this method to others. It should be noted, that his enthusiastic response may be a direct result of the agency he deals with.

"The agency we're using is fantastic. The thing we like is that they don't take a percentage of what they collect. They charge a flat rate for so many customers. They guarantee that if you turn over \$1,000 and they don't collect \$1,000, you get the portion back that is uncollected from the agency."

The relationship a lawn care businessman has with his customers can determine to what degree his company will be faced with slow-pay problems. This involves having a good, thorough knowledge of just who his customers are, as well as knowing how to sell his product.

Steve Nuss attributes his low percentage of slow payers, six accounts out of more than 1,000, to his solid sales background. Selling the customer correctly, says Nuss, means making sure he is going to have the money to pay for the product you sell him, and outlining your application procedures, method of billing and other company policies in a way that the customer is sure to understand.

"Some lawn care companies," says Nuss, "don't qualify some of their customers very well, and when it comes time to pay, the customer doesn't have the money, or he wasn't sold correctly and he's kind of vague about what you're offering, and he's disgruntled because he thought it would do more than you said it would."

This brings us to the problem of dissatisfied customers, perhaps the main reason people are slow in paying or refuse to pay altogether.

Tom Brune says that at least half of his non-payers claim dissatisfaction with the work done by the lawn care company. The problem he is faced with is in knowing whether or not these customers are what he terms "sophisticated debtors", or the person who knows just which excuse to use.

"In the dead of winter, says Brune, "what can I say to a person who says, 'My weeds didn't die, and therefore I am not paying'? My only recourse to that is to go to court, and what chance do I have in the dead of winter? The following spring, the effectiveness of the fertilizer is gone, and the lawn looks shabby anyhow. I wouldn't prove to anybody that it was a good job seven or eight months ago."

In any case, probably the best way to handle the slow-pay problem is to do everything possible to avoid it altogether. This is

often easier said than done, but the following suggestions may help:

- Screen the customer: Know who your customers are, and determine just how well they will be able to pay for the work done. This needn't involve a costly, lengthy credit investigation, but can be done merely by going through your customers' records of payment, invoices, ledger cards, etc.

In a Small Business Administration pamphlet entitled, *Credit and Collections*, author Cooke O'Neal suggests classifying your accounts according to payment risk, such as good, fair and weak. Obviously, the fair-risk accounts will have to be watched closer than the accounts of customers in good standing, and the weak accounts will be watched closest of all. If nothing else, you should make up a "bad guy" list of those customers who are chronic slow-

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A profile of the typical non-payer

Can you describe your typical non-payer? More than likely, he is not the swindling, con-artist type who shuts the blinds and refuses to answer the door, pretending no one is home. Nor is he likely to be the laborer who, suddenly finding himself out of a job, tactfully evades your repeated requests for payment with the promise, "I'll mail you a check tomorrow." What you are more likely to find as you pull your truck into the driveway, is that the Smith on the mailbox has been changed to Jones, and a whole new family is occupying the house on 113 Elm St. You see, just last month, Mr. Smith was informed that his company was moving its operations to Houston, or Atlanta, or Paoli, Pa.

The fact is, aside from dissatisfied customers, probably the largest group of non-payers are, as described by Liqui-Lawn's Charles Austin, "transient-type families who try the service out for a while and then split." Allan LaBertaux, of Lawn Groomer of Indiana, agrees. "A lot of times, of course it's their fault, but it's something that's understandable, even from our point of view. Usually where the bad debt comes from is that somebody ordered our service in all good faith, but by the time the second bill rolls around, they have been transferred and we just can't find them."

A less frequent, but more disturbing problem, is that of the professional non-payer, who manages to get year-round service without paying. "I'm afraid that some of the larger companies, with their boasting of undying efforts to satisfy the customers, are educating them as to how to beat the game," says Tom Brune, of Atwood Lawn Spray. "A picture of a smiling guy with a clipboard in his hand, saying 'I'm going to keep coming back to your lawn time, after time, after time, until you're so happy you're going to kiss me.' It's that kind of a message."

How these "sophisticated debtors" as Brune describes them, operate, is that they receive service from several lawn care companies. These customers are usually the ones who disregard the lawn care operator's instructions as to proper watering and mowing procedures. Or they let disease and insect problems rampage uncontrolled. Of course, they then call the lawn care service and refuse to pay for the original work.

"They ask you point blank, 'what are you going to do about it?'" says Brune. "We might indicate at this time, that additional money needs to be spent. 'We'll give you a call' the customer says. Meantime, they call company X who says, 'I'll fix that up and charge you less besides.' Thus, the customer gets service from a second company without paying the first. "There's an increasing number of people who know how to get their lawns sprayed all-year-round for nothing," says Brune. "They're a very small percentage, but it's getting larger."

3M's massive irrigation system covers 200 acres

Known to most simply as 3M, the Minnesota Mining & Manufacturing Company is truly one of the world's industrial giants. With sales and manufacturing operations in more than 40 countries across the globe and total annual sales topping \$4.66 billion, 3M in all probability touches the lives of most Americans every day, through one of its many diverse products.

It seems only fitting that the headquarters for this mammoth industrial concern be the home of the biggest commercial underground irrigation system in the Great Lakes region. Imagine for a moment an irrigation system that incorporates over

70,000 feet of pipe, almost 20 miles of control wire, 1,200 sprinklers, and sufficient acreage that a two-day irrigating cycle is required.

Such enormous dimensions are difficult to comprehend, yet they aptly describe the size of the irrigation system installed in the park-like setting surrounding the 3M headquarters in Maplewood, a suburb of St. Paul, Minnesota. Why irrigation in a geographical area with high annual rainfall? There are still dry spells that necessitate a man-made irrigation system.

This irrigation system, installed in the period from April through October 1978, has been

designed to join a package of 10 older satellite irrigation systems already at work at the one-half square mile complex, and literally doubles the acreage under irrigation there.

The result? The 3M Center now has a complete automatic irrigation system encompassing some 200 acres of land that features a centralized water supply and functions as a single watering unit.

The new irrigation system is divided into seven independently controlled zones, each with its own controller and its own pump. Existing centrifugal double suction booster pumps are used in all but one zone, with plenty of capability left over for additional expansion. These 25 horsepower pumps provide 300 gallons per minute. Underground deep wells located on the property provide the gallonage needed to complete a two-day irrigation cycle. A

pneumatic type storage tank holds the water until it's needed once it is brought up from the wells.

Rather than installing a central control area for all zones, the controllers for each are located in the field. Maintenance people can then set the individual watering schedules to correspond with the specific watering requirements of each geographical area.

The cost to complete the giant system? After careful evaluation of a number of competitive systems the decision was made to commit approximately \$180,000 to purchase the necessary automatic controllers, valves and sprinklers plus provide for the pipe and control wire to complete requirements. Despite the high initial price involved, one of the primary reasons for going to a totally automatic underground system was to save on costs.

Except for smaller areas, generally near buildings, that were irrigated by older satellite systems, large areas were watered with aluminum solid set systems which had to be hauled and set up each time a different area was to be watered down. Utilizing the old method of irrigation, the 3M maintenance crews barely finished watering the entire area before having to start the process over again, and it was impossible to keep the area entirely green all the time. Additionally, though less water would be utilized it was felt that the ground moisture penetration would be considerably better with the automatic system.

But more than water was saved. Switching to an automatic system allowed 3M to save better than \$40,000 a year in maintenance and labor costs, and that means the system will pay for itself in just five years.

What kinds of decisions went into selecting which system would be installed when it was determined the time was right to begin the project?

"One of the basic things that we shop for in any high ticket item for 3M is reliability," said Wallace H. Lee, engineering specialist, mechanical engineering department. "Additionally, we look for a good clean design and a good price."

3M entertained bids for the system by invitation only. Though the maintenance department was consulted each step along the way, the engineering department retained the ultimate responsibility for making the final decision regarding the brand of system and awarding the contract.

"We tore down each of the heads supplied by manufacturers competing for the job," Lee said.

The 3M project utilized 1,000 Rain Bird 47 and 51 rotor sprinkler heads and 200 Model 171 spray heads. Six RC23B automatic controllers and 110 two-inch brass valves were also required. The mammoth system was installed by Aqua City Irrigation, one of Minnesota's largest irrigation contractors, with as many as eight workmen employed putting in the system.

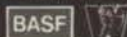
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PRODUCTS



One-step lawn mats

Grass seed, fertilizer and straw mulch can now be applied in one easy step with a new product called Roll n' Grow Lawns, from Action Lawns, Inc.

Straw is chopped into short lengths then bonded together with grass seed and starter fertilizer into either a two-foot by 25-foot or four-foot by 25-foot mat approximately one-fourth-inch thick.

The lawn mats are laid down on the prepared surface, rolled or tamped, then watered, releasing an agent that bonds the mat to the surface and later deteriorates as the grass seeds take root. The straw protects the seed during germination and establishment and eventually breaks down to provide organic matter to the soil.

Under proper growing conditions, the manufacturer claims the patent pending product will provide a thick growth within four weeks.

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New turf-type tall fescue

Lofts Pedigreed Seed, Inc. has announced Rebel, the new turf-type tall fescue. In performance tests with other tall fescues, Rebel has shown up to 30 percent finer leaf width and over 188 per-

cent more tillers providing a denser, finer turf that is well-suited for heavy traffic areas.

The new variety requires little maintenance, exhibits a good green color, and maintains a solid stand even when mown at heights as low as 1-1/4 inches.

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Multi-purpose spreader

From Warren's Turf Nursery comes the Model T-7 spreader.



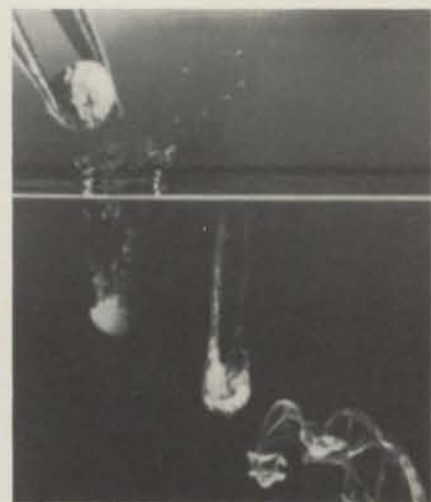
an all new multi-purpose spreader that quickly and accurately distributes seed and chemicals by way of a hand-turned crank.

This small, lightweight spreader has a hopper capacity of one bushel and spread width of up to 20 feet. Rate of material is adjusted with a six-point calibrated scale shutter, and self-agitator assures even flow. All exposed parts are made of corrosion-free stainless steel or polyethylene materials.

Write 906 on reader service card

New wettable-powder herbicide ends dust and mixing problems

Dust and mixing problems of wettable-powder herbicides used for industrial weed control are avoided by a new type of Princep herbicide called Caliber 90, manufactured by Ciba-Geigy Corp.



The chemical, which is formulated as a water-dispersible granule, contains 10 percent more active ingredient than any other simazine-chemical formulation on the market. The manufacturer claims it pours smoothly from 10-pound plastic bags without hanging up or causing dust.

Premixing is unnecessary because the granules quickly go into solution with water, eliminating the problem of plugged screens and lines.

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payers, says Paul Kampe, president of Lawnrite Corp, Port Jefferson Station, N.Y.

Earl Sinnamon agrees. "When the representative goes out and gets an order, before we do that order, the bookkeeping department looks through the records to check that person's record of payment."

He solves the slow-pay problem by requiring his weak risk customers to pre-pay for the work. This is especially useful in handling large orders. "Some of our orders are \$500, \$600, or \$700. We require 30 percent down at the time of order, 30 percent down when the work is completed, and the balance 30 days after that."

- Periodically review accounts: This goes hand in hand with customer screening, and involves reviewing the accounts of your customers to insure that their payment status hasn't changed, in other words, keeping an eye out for potential problems. "Our office is now on the alert for customers who are slow payers, says Earl Sinnamon. "We're trying to crack down on them. Up until now, we have not."

Along with reviewing individual accounts, the lawn care businessman should periodically review his collection records as a whole. O'Neal suggests computing a monthly collection index report, which is a percentage of collection during the month to receivables at the beginning of the month. "This simple report can allow for review and comparison on a month-to-month basis, to establish trends for evaluation," he says.

It is also helpful to compare bad debt loss for the present year with that of previous years, to determine the strength of collection efforts necessary, and to weigh how factors such as the economy come into play.

- Encourage prompt payment: Make the payment procedure as simple as possible, thereby helping the customer pay his bill on time. One good way to do this, is to have the applicator deliver the bills at the time the lawn is treated, rather than mailing them.

Tom Brune is one lawn care operator who prefers to handle billing in this way, furnishing his drivers with pre-printed invoices. "On that invoice," he says, "is a request (near the total) that payment be sent within 10 days." Brune even provides his customers with an envelope to send the payment in. "In other words, we've done everything we can to encourage a customer to be prompt, and to follow the directions we've left him."



"Our general feeling is that if they can't pay for one, there's no way they can pay for two, or three, or four. We're not going to carry them for the season."

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

- Be prompt and firm in your collections: "Time is the essence of credit and collections," says Cooke O'Neal. "The follow-up must be made on a timely basis in order to be effective." Some lawn care companies scan the accounts within 10 to 15 days after the initial billing, and enact a financial hold within 30 days.

Ten working days is a good rule of thumb for sending out notices, according to some lawn care operators. "We give the customer 10 days (two weeks)," says Steve Nuss. "We then send out a second notice in the mail. If we don't hear from him in two weeks after that he gets a third notice, followed by a phone call."

The object of collections for most businessmen is to get all payments for previous applications before it is time to apply the second round of treatments. "Our general feeling," says Tom Brune, "is that if they can't pay for one, there's no way they can pay for two, or three, or four. We're not going to carry them for the season."

- Complete the collection process: "Take legal action if necessary," says Paul Kampe. Although some businessmen are reluctant when it comes to going to small claims court, it doesn't pay to threaten the customer, if you don't intend to go through with it. Indeed, it is now illegal to simply threaten a customer with small claims court.

Keep up with sending notices and making phone calls until you extract payment from a customer. Try to pin him down to a date, and if the money isn't in by that date, call him again.

Consider using a collection agency after you've exhausted all in-house efforts. Sometimes the idea of a collection agency

will scare a customer into paying, simply because he views it as being more powerful than it is, or because he knows that a court trial may be the next step.

- Pre-payment discounts: One way to handle a chronic slow payer is to get him off your back by offering him a pre-payment discount if he pays ahead for the whole season. "We get rid of the problem without losing the customer," says Tom Brune. Some customers may be angered by such a proposal, but it may be an idea worth considering.

For large accounts, it may be a good idea to require the customer to pre-pay only a percentage of the bill as was mentioned earlier.

The rapport you can develop with your customers, as well as the image you present, can be instrumental in keeping the slow-pay problem from ever becoming a problem.

This is where having a smaller business can be a distinct advantage. "We establish a better rapport than a large company that has 5,000 or 10,000 accounts," says Steve Nuss. "We have a good reputation and an excellent staff. The people like them; I think that's why the people pay us better. People wave to us when we go downtown. They know the fellas who spray their lawns by name."

Of course, there is no way to guarantee that all your customers will deliver payment promptly. But taking a few preventative measures and being firm but understanding when handling collections, can certainly cut down on the number of slow payers. And with the present state of the economy, a slow-pay problem is something that no businessman can afford.

— Kathleen Milgate

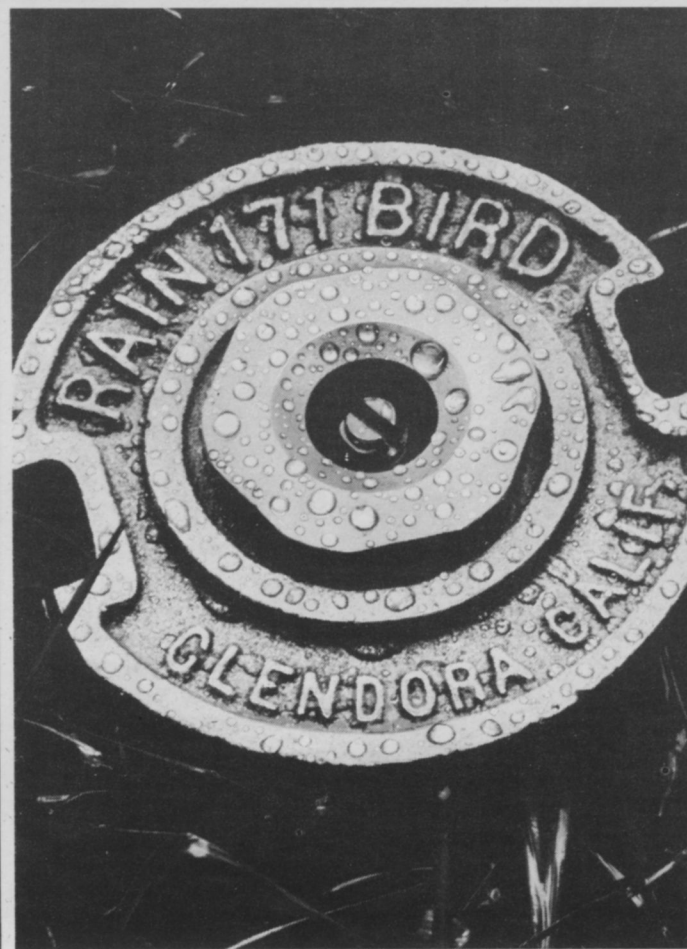
PLCAA SEMINARS from page 1

"Liquid Versus Dry Application Techniques." Discussion leaders are Gary L. Mack, president, American Lawn of Maryland, Inc., Walkersville, Md., and George W. Graham, Jr., owner of Lawn Kare by George, Alexandria, Va.

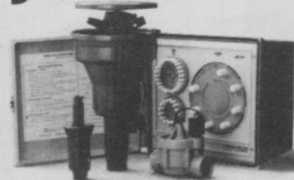
"Premixing (Batching) Materials for Liquid Application." Discussion leaders are Jim Kelly, general manager of Keystone Lawn Spray, Wayne, Pa., and Jerry Faulring.

The Ohio seminar will be held from 10 a.m. until 5 p.m. at the Brown Derby, 344 East Hines Hill Rd., Hudson. Topics include: "Resolving Customer Complaints — Effective How-Tos and Techniques." Also, "Cancellations — How To Reduce and Proper Tracking Systems and Appropriate Management Techniques."

Faulring is president of the PLCAA and Ober, Schnare and Burton are all members of the group's board of directors. Non-members are welcome to attend.



To improve your lawn care business, just add water.



You've got a growing business, we've got a growing business. Why not combine them?

Installing underground automatic sprinkler systems is easy and profitable.

And with quality controllers, heads and valves from Rain Bird, rainmakers to the world since 1933, your customer is assured the best system available. His lawn stays healthier and so do you.

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BEHIND THIS ISSUE



Mark your calendars now for the industry event of the year if you are a lawn care businessman.

The First Annual Professional Lawn Care Association of America Convention and Trade Show is set for Nov. 12-14 at the Commonwealth Convention Center in Louisville, Kentucky.

In addition to manufacturer exhibits, there is a top-notch business seminar program in the works. Here are some of the topics:

- One Stop, Two Sales — Selling add-on services to your basic lawn care program.
 - Is Your Business Plan Set for 1981? Here's How — Establishing a budget, review of a sample chart of accounts.
 - Moving Toward the Computer — evaluating data processing needs and options.
 - Your New Employee, Will He Represent You Well? What He Really Needs to Know.
 - Direct Mail Is the Only Way to Go.
 - Controlled-Release Nitrogen.
 - How to Pay Your Applicator.
 - Issues You Can't Avoid in the '80's — Legal Liabilities, pesticide problems, collections, labor, government regulations and safety.
 - Pesticide Usage in the '80's.
 - Expansion: Ways, When, Where.
 - Advertising Media: Take Your Pick.
- In addition to these seminars, there will be an equipment demonstration on the final day of the show.

For further information on attending or

exhibiting, contact: Jane Stecker, PLCAA, 435 N. Michigan Ave., Suite 1717, Chicago, IL 60611, 312-644-0828.

This is the only national conference and show sponsored by the professional association of the lawn care industry. You owe it to yourself and your business to attend.

Bob Gentry



EXCEL HUSTLER owners mow more acres per payroll hour per gallon.

Your EXCEL HUSTLER means Mower and More — every season.

The Mower cuts fine grass or rough, 54" to 72" swaths, rotary or flail. Dual hydros transmit *instant pure motion* to drive wheels in response to a light touch on the twin hand levers. Less time wasted on maneuvers means More work time for your money! Two hydrostatic pumps work at only half the pressure so last many seasons longer. More value, less downtime.

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Factory trained service & parts from your Distributor. Write for his name and literature. Or call toll-free (800) 835-3260. In Kansas or Canada call (316) 327-4911 collect. EXCEL HUSTLER Turf & Grounds Equipment built right by Excel Industries, Inc., Box 727, Hesston, Kansas 67062.

GSA: GS-07S-04916 HUD: OPH (CO)m-2930

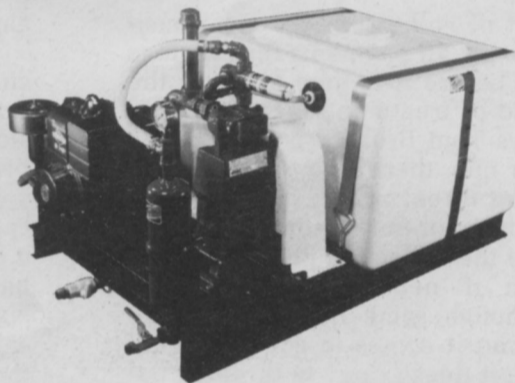
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When you look for quality, look for us.



PC 100 gallon complete spray unit equipped with FMC John Bean 10 GPM pump with pressures up to 500 PSI (available with jet or mechanical agitation)

The TUFLEX manufacturing process allows a five year warranty on all tanks.

For economy prices and more information on our complete line of tanks, write or call now:

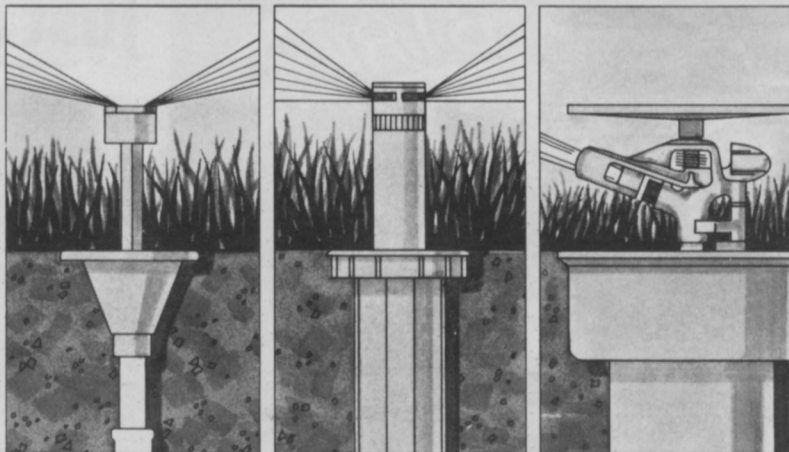
Tuflex is the only manufacturer to specialize in *seamless* fiberglass spray tanks specifically for the pest control and lawn care industry. Remember when craftsmanship was an art... at Tuflex it still is! The exclusive Tuflex process carries a full five year warranty on all handcrafted seamless fiberglass tanks.

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P.O. Box 13143, Port Everglades Station
Fort Lauderdale, Florida 33316
Phone 305/525-8815

Plant Location: 800 Eller Drive, Port Everglades in Fort Lauderdale

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The taller the grass...the higher we pop!



From residential to light commercial turf installations, Champion has a pop-up to do the job! When you compare the cost, precision construction and performance, you'll buy Champion. The 18HP (2" pop-up), the P180 (2½" pop-up) and the 6178 Impulse pop-up are just three of over one-hundred fifty sprinklers,

valves, controllers and accessories featured in the new Champion, full-color catalog. Ask for your free copy.



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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.

FOR SALE

FOR SALE—Liquid lawn fertilization and service company, 3 year old company. In major southern city. Full staff. Good equipment. Established customers. For more information, call: Robert D. Franks 318 221-4289.

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.

LAWN FERTILIZER BUSINESS for sale, located in south Texas. 79 vol. 100K +. Excellent potential, serious inquiries only. PGL, 1110 Basse

LAWN CARE INDUSTRY

Just fill in card...all items must be completed before inquiries can be processed.
Check one box in each category

- Check one that best describes your business:
Lawn care service businesses involved primarily with fertilization, weed and insect control:
10 ☐ Liquid 11 ☐ Dry 12 ☐ Both
13 ☐ Primary mowing/maintenance service
14 ☐ Landscape Contractor/Lawn Service Co.
15 ☐ Pest Control/Lawn Service Co.
16 ☐ Nursery or Garden Center/Lawn Service Co.
17 ☐ Grounds Care Manager for:
18 ☐ Private or public estate
19 ☐ School, College, University, Hospital, Industrial Park or similar facility
20 ☐ Government grounds, such as parks, around municipal buildings, or military facility
21 ☐ Cemetery or memorial gardens
22 ☐ Dealer or Distributor
23 ☐ Other _____
- Check one which best describes your buying responsibility:
24 ☐ Purchase
25 ☐ Specify or recommend purchase
- If your business sells its services to homeowners, commercial or industrial accounts please answer the following:
3A/ **Estimated gross annual receipts from lawn service operations in current year:**
31 ☐ Up to \$50,000
32 ☐ \$50,000 to \$150,000
33 ☐ \$150,000 to \$500,000
34 ☐ \$500,000 to \$750,000
35 ☐ \$750,000 to \$1,000,000
36 ☐ Other _____
- If you are a grounds care manager (not selling lawn care services) estimate the following:
37 ☐ Up to 100
38 ☐ 100 to 500
39 ☐ 500 to 2,500
40 ☐ 2,500 to 5,000
41 ☐ 5,000 to 10,000
42 ☐ Other _____
- 3C/ Is your business:**
43 ☐ Independent
44 ☐ Franchise
45 ☐ Chain Affiliated
- If you are a grounds care manager (not selling lawn care services) estimate the following:
50 ☐ # acres you're responsible for _____ acres
Annual expenditures for:
51 ☐ Chemicals \$ _____
52 ☐ Fertilizers \$ _____
53 ☐ Equipment \$ _____
54 ☐ Irrigation \$ _____
55 ☐ Plant Materials \$ _____

91	First Initial	Middle Initial	Last Name
92	Your Title		
93	Company Name		
94	Mail To:		
95	City	State	Zip Code
96	Phone: Area Code	No.:	

97 Signature: _____ Date _____
Do you wish to receive/continue receiving Lawn Care Industry? ☐ Yes ☐ No

Address shown is:

98 ☐ Business
99 ☐ Home

5 **For more information about products** displayed in this issue, print the reader service number in the spaces provided below and check off A, B, C, or D for specific information needed.

61 <input type="checkbox"/> Need Catalog literature	a	b	c	d
62 <input type="checkbox"/> Need more price info	a	b	c	d
63 <input type="checkbox"/> Interest in Purchasing	a	b	c	d
64 <input type="checkbox"/> Have specific problem—have salesman call.	a	b	c	d

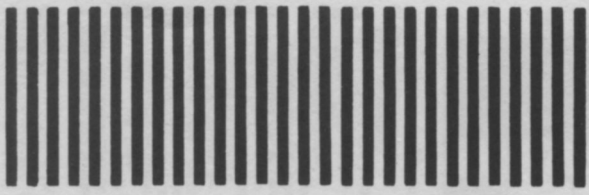
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The low-burn-potential, true solution nitrogen for lawn and turf professionals.

Reduced burning. Quick green-up. Nitrogen released in one season. Improved performance over dry products. No agitation, clogging or bag handling. No aggravation. These are the benefits that help make your lawn care service program easier throughout the season.

FORMOLENE nitrogen fertilizer is a clear water solution of synthetic non-protein organic nitrogen, based on methylol-ureas and urea, ready for easy blending with other nutrients. Because of uptake efficiency through foliage and root systems, FORMOLENE fertilizer provides the economy you need with the color response and healthy turf your customers like to see. And it can be used on any kind of turf as part of your year-round lawn care spray program.

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

During the hot, dry summer, FORMOLENE nitrogen won't burn when used as directed, but delivers steady growth with adequate watering while retaining healthy turf color.

For fall lawn care programs, you can count on FORMOLENE fertilizer to help strengthen root formation and support winter carryover of nitrogen for a healthy growth start the following spring.

FORMOLENE fertilizer has a 30-0-2 analysis and blends easily with other solution nutrients and most turf herbicides, insecticides and fungicides. It can be used at rates as high as 2 lb per 1,000 sq. ft., per application, without burning. And rates of less than 1 lb per 1,000 sq. ft. can yield excellent results, providing an edge in economy and efficiency over many nitrogen sources.

This easy-to-handle nitrogen fertilizer is available from Ashland in 20-ton tank truck loads. Smaller quantities, and complete N-P-K blend concentrates based on FORMOLENE, are available from authorized dealers.

In short, FORMOLENE fertilizer provides the ideal basis for putting nitrogen on your customers' lawns with a minimum of aggravation. We'll be glad to tell you more. Write Ashland Chemical Company, Chemical Systems Division, Box 2219, Columbus, Ohio 43216. Or call one of our FORMOLENE experts at (614) 889-3490 or 889-4655.

TMTrademark, Ashland Oil, Inc.



Ashland Chemical Company

DIVISION OF ASHLAND OIL, INC.

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Road, San Antonio, Texas 78212. 512 732-4982.

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

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.

SPECIAL INVITATION TO ATTEND and learn at the 1980 summer conference of the Green Pro Executive Newsletter, August 3-5, at beautiful Taminet 2200 acre resort and country club in the Poconos. Half day sessions feature Mr. Robert Earley, editor/publisher of Lawn Care Industry Magazine, Dr. W. H. Daniel, pre-eminent turf specialist from Purdue University, and many other expert instructors/advisors to help you build your business, im-

prove profits, get more dollars from your efforts, and gives your Key-Man a fringe benefit that benefits you. Subjects include . . . business problems, scheduling, programming, lawn care plans, outlook for the 80's, direct response advertising, diseases, seed, fertilizers, insects, micronutrients, soil and soil testing, profit potentials, etc. (The consensus of those attending the winter meeting . . . "I came expecting to learn a lot . . . and I did"). This is one conference your wife will enjoy! The low attendance fee includes accommodations, meals, resort activities, star entertainment, exhibits, manuals, workshops, seminars. Learn from premier experts on an eyeball to eyeball level for greater profits and professional performance. Call Miss Rice collect 516 483-0100 for information and reservations. Available accommodations limited, call today. Visa, master-charge accepted.

FOR SALE: Electric Addressograph Multigraph, model 1900, and electric typewriter plate maker, (Graph-O-Type) metal frames and plates, for 6,000 customers, storage drawers and cabinets. Used for routing, invoicing and advertising. Addressograph has many features such as: manual or

automatic feeding of plates, automatic skip or repeat control and automatic counter. All in excellent condition. An \$8,000.00 value for \$3,600.00 complete. Call 216 351-3885 9:00 A.M. to 5:00 P.M. weekdays. Lawnco, Inc., 4900 Van Epps Road, Brooklyn Heights, Ohio 44131.

USED EQUIPMENT

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.

FOR SALE: Liquid lawn treatment sprayer trucks 300, 950 and 1300 gallon units available. All feature fiberglass tanks with jet spray. Trucks shown in March issue. For more information call: Dan Conway or Rob Franks 318 221-4289.

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.

TANK TRUCK SPRAYER — Big custom built 1800 gallon all stainless insulated lifetime tank, w/60 G.P.M. Bean (F.M.C.) high pressure pump and engine on fine heavy duty C 750 Ford w/air brakes, can double as water tanker or sprayer, only one of its kind. 513 424-2052.

HELP WANTED

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.

MANAGEMENT POSITION — OPEN NOW. Rapidly growing lawn care company in Virginia desires potential branch manager with proven performance record in turf industry. Must have: appreciation for corporate growth, strong desire for personal gain, and experience in operations management. Other qualifications must include: comprehensive knowledge of turf, equipment and personnel management. Applicant must be willing to locate in Virginia, train extensively with serious intentions of assuming branch management position. No phone calls. Send resumes only-ASAP. P.O. Box 120 Salem, Virginia.

POSITION AVAILABLE: Young, challenge-oriented company with outstanding growth history and potential offers opportunity for an aggressive individual in the lawn care industry. We're seeking a person with take-charge abilities who can also work effectively in a team situation to meet our corporate objectives. If your career requirements involve a fast-paced, rewarding position offering rapid advancement, send resume to Tru Green Corp., 6524 28th St., S.E., Grand Rapids, Michigan 49506.

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.

TURF SPECIALIST/MANAGER TRAINEE: Excellent opportunity for hard-working self-starter. Must be able to take charge of complete operation. Sales ability & a good business background a must. Send resume & salary requirements or call: American Lawnservice, 12211 Distribution Dr., Beltsville, MD 20705. 301 937-9494.

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.

OPPORTUNITIES

FLORIDA WEST COAST — Large lawn maintenance company for sale. Accounts on long term contract basis. Very well organized and managed. Real estate included. Excellent growth potential in populated area. Contact: Charles M. Morris, Lic. Real Estate Broker, 4164 Herschel St., Jacksonville, Fla. 32210. 904 387-6724.

TOUCHDOWN

Kentucky bluegrass

PLANT VARIETY PROTECTION CERTIFICATE No. 7400066

POA ANNUA... FINALLY MEETS ITS MASTER

. . . University of Illinois at Urbana-Champaign

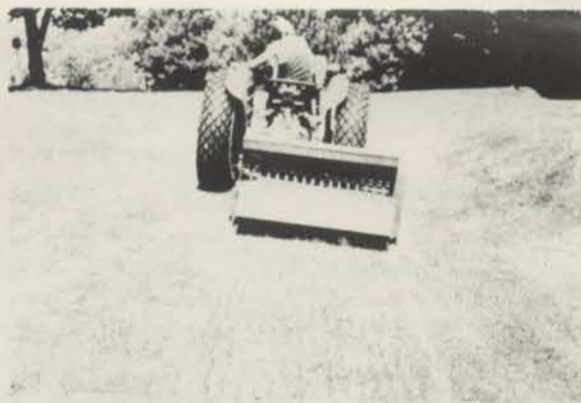
Dr. A. J. Turgeon and co-workers J. E. Haley and J. R. Street conducted intensive Kentucky bluegrass cultivar management studies.

Twenty-one cultivars were planted in September 74. Varying management regimes were imposed to measure their competitiveness against the infestation of Poa annua.

They concluded: "The most impressive differences among cultivars were observed under close mowing (0.75") and high fertilization (8 lb./N per 1000 sq. ft.). Several of the cultivars were virtually overrun by Annual bluegrass while others remained nearly weed free. Those cultivars which are apparently best adapted to this cultural intensity include A34, Brunswick and Touchdown".

Touchdown fights Poa annua two ways: First — its superior disease resistance means it won't thin out from Crown rot (Leaf spot) Leaf rust, Stripe smut or today's Fusarium so Poa can't get a foothold . . . and secondly it's so aggressive and dense in growth habit it just keeps on fighting Poa.

Touchdown is ideal for overseeding . . . it germinates fast and quickly develops a healthy, mature turf.



Let's look again at what Touchdown has for you:

- early spring greenup
- rapid establishment
- drought and heat tolerant
- dwarf growth habit
- superior disease resistance
- bright green color

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Expand your customer list. DELTIC is ideal for professional treatment of lawns, yards, industrial sites, parks, playgrounds and other outdoor areas where ticks, fleas and mites are a problem.

Kennels, dog houses and dog runs can also be treated. **Easy to apply!** DELTIC is a liquid that's easy to pour, mix and apply. Use it in conventional power, hand or

compressed air sprayers. When it comes to controlling ticks, fleas and mites in lawns and other outdoor sites, DELTIC means business. Call or write for full details on this exclusively professional product.

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Wilmington, Delaware 19803
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KENTUCKY BLUEGRASS

is the most 'customer-proof' grass seed I can buy"



Alan Maged

Alan Maged,
Lawn-A-Mat dealer, Garden City Park, Long Island, New York. . .
one of the largest independent lawn care dealers, servicing over 2000 lawns.

"I make sure Baron is in every pound of grass seed we use. Last year it amounted to 80,000 pounds of Lofts special lawn seed mixtures. If all goes well, I'll order even more this year.

"Why do I insist on Baron? Because my customers expect me to compensate for everything, from the weather to their own mistakes. Some homeowners may let their lawn grow to six or eight inches, then cut it to three-quarters of an inch! Or they'll forget to water their grass during a drought, or

use their lawn for a baseball field. With all that abuse, they still expect a good lawn.

"I need a 'customer-proof' grass seed mixture. So I specify Baron, Yorktown and other top quality Lofts grasses in my special mixture. I get a lush, green color, an excellent root system and the best resistance to leaf spot I've ever seen. Guess that's why I get better than 85% renewals every year.

"One last thing, I really depend on my suppliers for delivery and service. I've dealt with the Lofts people for 15 years and they haven't failed me yet. That's very important to me."



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