

ALA

JANUARY 1988 • \$2.00

IN THIS ISSUE:
**MIXED REVIEWS FOR
CONTESTED ALACHLOR
BUY/SELL AGREEMENTS
COVERAGE OF PLCAA AND
PRO SHOW CONVENTIONS
BLUEGRASS PATCH
DISEASE**

**LEASING
and
FINANCING**

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FINANCING**

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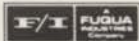


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Snapper also offers 21" walk mowers, riders, tractors, trimmers, pluggers, power rakes and snowthrowers especially designed for commercial use.

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Manufacturers of quality
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ALA

JANUARY 1988
VOLUME 9 NUMBER 1

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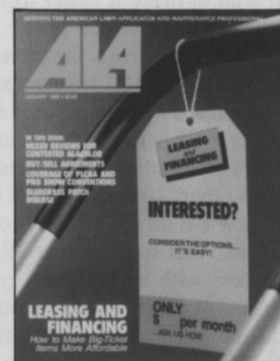
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COVER

It's probably easier than you thought to purchase that maintenance equipment you've had your eyes on. Today dealers are offering several types of financing and leasing plans that can help you conserve your cash while obtaining quality tools. (Cover photo by Barney Taxel. Props: Tom and Barb Code).

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INSIDE STORY

Have you ever gotten discouraged by the inability to buy what you want when you need it? Most of us have felt these pangs at one time or another in our lives. But while the situation may seem eternally desperate, there are options.

That's the topic of this month's cover story, "Leasing and Financing." This story takes a look at plans manufacturers have come up with to make it easier to bear the cost of their higher-priced items.

Leasing and financing plans come in all shapes and sizes for any company in the industry that's looking to take a shortcut in buying much needed equipment. Some companies cater only to established businesses, while others have the ability to help even the new kid on the block. Most, however, demand that the company they're doing business with have a good credit rating.

And if you're worried about sticking to a 12-month repayment schedule when your business is only open nine months out of the year, never fear. Some companies have established plans to accommodate the seasonal employer.



Because many leasing and financing plans are a hot commodity on the market, it's worth your time to shop around for the best deal.

In this issue you'll also find coverage of recent PLCAA and Pro Show conventions. The PLCAA continues to set records in exhibitor attendance at its show, and last year surpassed the 300 mark in new members.

Plans for future Pro Shows are up in the

air because of low attendance at its first show. Although there's been lots of speculation about future Pro Shows, the Outdoor Power Equipment Institute insists it has made no definite plans regarding the show's fate.

In other news, we'd like to welcome Dr. John Street of The Ohio State University to the ALA editorial advisory board. Street replaces Gordon LaFontaine, president of Lawn Equipment Corporation, Novi, Michigan, on the board. LaFontaine has been on ALA's advisory board since its inception in November 1984. We would like to thank LaFontaine for his valuable service and wish him the best in the future.

Street holds a bachelor of science degree in plant physiology from California State College and master's and doctorate degrees in agronomy from The Ohio State University. His chief research interests are in turfgrass, nitrogen fertilization and weed control.

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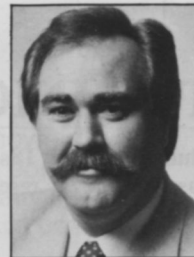
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Dr. John Street is an associate professor in the agronomy department at The Ohio State University. **Dr. William Meyer** is president of Pure-Seed Testing Inc., Hubbard, Oregon. **Des Rice** is president of The Weed Man Ltd., Mississauga, Ontario, Canada. **Dr. Al Turgeon** is professor and head of the department of agronomy, Pennsylvania State University. **Dr. Joseph Vargas** is professor of botany and plant pathology, Michigan State University, East Lansing, Michigan. **Dr. Patricia Vittum** is associate professor of entomology, University of Massachusetts, Waltham, Massachusetts.

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VIEWS ACROSS THE INDUSTRY

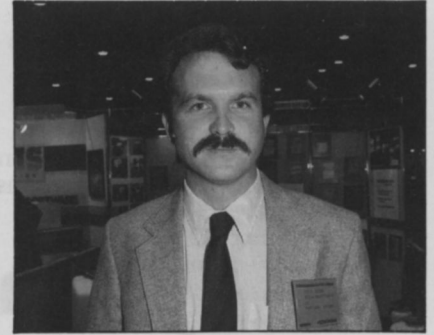
HOW DO YOU PREFER TO PURCHASE YOUR EQUIPMENT?



"Our mowing equipment is basically financed or paid for outright. I've looked into leasing trucks a couple times and it usually ends up costing more in the long-run. I've read about it and some folks have suggested it but, from my experience, I just haven't seen where it was advantageous at all. A couple years ago it was a different story. In 1987, it didn't work out the couple times I tried. I don't think it's going to change in the next couple years. But unless you've got a bad credit rating and a bad credit history, I don't see where it's advantageous." — *Ed Wigfield, Estate Maintenance, Emmaus, Pennsylvania*



"We don't lease anything. We have a savings and try to pay cash. I probably will be leasing some equipment in the near future. We've looked at that possibility. I would probably look at it if I went for a truck. I looked into the possibility this fall of a new truck with a plow and everything on it. I haven't committed myself yet, but I believe I'm going to be leasing. It just seems a better way to go right now...much more convenient. It's so much easier than going to the bank and having to convince them that I am a reputable company." — *Gerald Haney, The Yard Works, Avon Lake, Ohio*



"We lease all of our equipment through our own lease company. We do it for the liability factor. In this day in age, lawsuits are common and if someone decides to bring suit against our landscape maintenance company, the court will tie up all the assets while it's in court. With that in mind, I would just go to the maintenance company and say, 'Give me back all my equipment.' I can turn around and keep servicing my accounts because it's my equipment, not the lawn maintenance company's." — *Steve Bizon, Bizon Maintenance Company/Bizon Leasing Company, Wilsonville, Oregon*

CALENDAR

Jan. 15-17

Mid-Am/88 Trade Show, Hyatt Regency, Chicago, Illinois. Contact: Mid-Am office, 4300-L Lincoln Avenue, Rolling Meadows, Illinois 60008; 312/359-8160.

Jan. 18-19

1988 OPTI-GRO Athletic Field Maintenance Seminar, Austin, Texas. Contact: Pat Cook, OPTI-GRO Division of MANTEK, 1775 The Exchange, Suite 300, Atlanta, Georgia 30339; 800/241-3302; in Georgia, 404/952-0228.

Jan. 19

Professional Turf and Landscape Conference, Yonkers Raceway, Yonkers, New York. Contact: John F. Cockerill, Publicity; 914/428-6443.

Jan. 19-21

1988 Virginia Turfgrass Conference and Trade Show, Richmond Centre for Conventions and Exhibitions, Richmond, Virginia. Contact: J.R. Hall, III, Virginia Polytechnic Institute, Virginia Cooperative Extension Service, Blacksburg, Virginia 24061; 703/961-5797.

Jan. 19-28

Illinois Landscape Contractors Association Annual Winter Seminar, Oaks Meadows Country Club, Addison, Illinois. Contact: ILCA office,

2200 South Main, Lombard, Illinois.

Jan. 21-22

1988 OPTI-GRO Athletic Field Maintenance Seminar, Houston, Texas. Contact: Pat Cook, OPTI-GRO Division of MANTEK, 1775 The Exchange, Suite 300, Atlanta, Georgia 30339; 800/241-3302; in Georgia, 404/952-0228.

Jan. 25-26

1988 OPTI-GRO Athletic Field Maintenance Seminar, Nashville, Tennessee. Contact: Pat Cook, OPTI-GRO Division of MANTEK, 1775 The Exchange, Suite 300, Atlanta, Georgia 30339; 800/241-3302; in Georgia, 404/952-0228.

Jan. 30

"Becoming a Better Manager," California Landscape Contractors' Association, Inc., San Jose's Holiday Inn/Park Center Plaza. Contact: Yvonne Fenner, CLCA Headquarters, 2226 K Street, Sacramento, California 95816; 916/448-CLCA.

Feb. 1-2

1988 OPTI-GRO Athletic Field Maintenance Seminar, Raleigh-Durham, North Carolina. Contact: Pat Cook, OPTI-GRO Division of MANTEK, 1775 The Exchange, Suite 300, Atlanta, Georgia 30339; 800/241-3302; in Georgia, 404/952-0228.

Feb. 3-4

Industrial Vegetation Management Association Annual Meeting and Right of Way Herbicide Applicator Recertification Training, Texas A&M Agricultural Research and Extension Center, Dallas, Texas. Contact: R.M. Cope, 1015 N. 122nd St., Omaha, Nebraska 68154; 402/498-0881.

Feb. 6

"Becoming a Better Manager," California Landscape Contractors' Association, Inc., Grand Hotel, Anaheim, California. Contact: Yvonne Fenner, CLCA Headquarters, 2226 K Street, Sacramento, California 95816; 916/448-CLCA.

Feb. 8-9

1988 OPTI-GRO Athletic Field Maintenance Seminar, Lubbock, Texas. Contact: Pat Cook, OPTI-GRO Division of MANTEK, 1775 The Exchange, Suite 300, Atlanta, Georgia 30339; 800/241-3302; in Georgia, 404/952-0228.

Feb. 9-10

Northeastern Pennsylvania Turfgrass & Grounds Maintenance School, Luzerne County Community College, Prospect Street & Middle Road, Nanticoke, Pennsylvania. Contact: Robert Kotch, Luzerne County Extension Service, 200 Adams Avenue, Scranton, Pennsylvania 18503; 717/825-1701.

NEWS IN BRIEF

ALACHLOR GETS MIXED REVIEWS IN CANADA, UNITED STATES

The Canadian Alachlor Review Board has again recommended that the herbicide alachlor be registered in Canada, while the U.S. Environmental Protection Agency will restrict the use of the country's number one herbicide.

Alachlor is the active ingredient in Lasso herbicide — a registered trademark of Monsanto Agricultural Company.

The Canadian Board — a panel of world renowned experts in toxicology and medical research, pathology, risk analysis and agricultural economics — recommended to the Federal Minister of Agriculture that “the registration of alachlor should be restored.”

The registration of alachlor was canceled by the government in 1985 following concerns about potential health effects. Monsanto requested a review of the decision, and the Alachlor Review Board was appointed by the Minister of Agriculture in November 1985 to review evidence and present its recommendations.

In the United States, the federal EPA announced Dec. 15 that the herbicide would be restricted to certified applicators. In addition, warning labels on the product must indicate the product causes tumors in laboratory animals.

The restrictions will go into effect for the 1989 growing season.

“We’re pretty pleased. The benefits are significant,” said G.D. Ingenthron of Monsanto. “We don’t think the data warrants restricted use, but we won’t contest it.”

“Monsanto encourages farmers to be certified. Ninety percent are already certified. We hope this will convince the rest to become certified.”

Alachlor is the most widely used herbicide by U.S. farmers for weed control in corn and soybean crops, according to Ingenthron. The EPA’s decision also returned aerial application of the herbicide on Lasso’s label. Aerial application had previously been banned.

In October 1986, the EPA proposed a final regulatory decision that would continue the U.S. registration of alachlor with certain use conditions. According to the EPA, alachlor in the consumer’s diet might cause one person in a million to contract cancer after 60 years of exposure.

Ingenthron said the U.S. EPA decision would not affect the Canadian Board’s decision which approved registration with no restrictions.

“We have never doubted that Lasso is safe when used properly, and we are pleased that the Board supports this view, as do regulatory authorities in other countries,” said Henri Aboutboul, president of Monsanto Canada. “We believe the Board’s comprehensive review of current scientific evidence establishes clearly the fact that alachlor can be used by Canadians without unreasonable risk to health or the environment.”

“Since metolachlor is the primary substitute for alachlor,” the report states, “the safety of both compounds is relevant to a decision on either.” The report also says, “The board considers that there is presently no valid scientific basis for concluding that either alachlor or metolachlor is safer than the other, from a human perspective.” The board goes on to recommend that both products be registered in Canada.

In its conclusions on potential risk to users of alachlor, the board report stated that “exposure to applicators and the public, if proper precautions are used, would not occur at unacceptable levels.”

The board report also stated: “Estimates of potential exposure to the public through water supplies are generally lower than applicator exposure estimates, even under worst case assumptions. In this situation, the board considers this to be a reasonable margin of safety.”

PENNSYLVANIA LAWN COMPANY FIGHTING LICENSING FEES

Just when he thought he had scored a victory for the lawn care industry, Neal DeAngelo found himself starting all over again.

DeAngelo, given less than a month to savor his court victory, recently learned that his appeal in Pennsylvania’s Common Pleas Court would be appealed by the group which sued him.

DeAngelo, president of Lawn Specialties in Hazleton, Penn., appealed and won a district court decision which found him guilty of not purchasing licenses required to work in certain Pennsylvania municipalities.

Shortly after DeAngelo’s favorable decision, however, the borough of McAdoo decided to try its hand at its own appeal.

The case began in early 1987 when Lawn Specialties received approximately 10 requests from different cities, boroughs and townships requiring that it pay for a business

or contractors license to operate within each of their municipalities, for amounts between \$25 and \$100.

The borough requires all contractors to obtain a permit to perform work or furnish goods within the borough limits. The ordinance covers licensing, but does not include posting or notification regulations.

The total cost to Lawn Specialties to purchase such licenses for the 1987 season totaled about \$800. The number of these requests has been increasing every year since 1978. In 1978, the company had to buy just one business license from one municipality for \$50.

The company continued to pay the license fees until a state Senate Bill amended Pennsylvania’s Pesticide Control Act of 1973, taking all licensing and regulations out of local governments’ hands and putting it solely in the hands of the state.

At this time, DeAngelo’s attorney reviewed the amendment and decided that it preempted any ordinance an individual municipality might have. The company argued that the borough was requiring Lawn Specialties to do exactly the same thing the state required it to do — obtain and maintain a license for the use and application of pesticides.

Letters were sent to each municipality stating the company’s new position, but the borough of McAdoo decided to stand behind its ordinance and issue the company a citation for working within their borough without a license.

Throughout the court battle, Lawn Specialties has not paid any license fees. Several municipalities have contacted the company for payment of fees, but have held off until the matter is settled.

“I’m certainly not going to pay anybody else until this is settled,” DeAngelo said. “I don’t know how far we’ll take it. I can’t burn my company with legal expenses to fight it at a state level. If I can get support from some other companies, it may be a different story.”

On the local and county levels, DeAngelo said he has already spent a few thousand dollars in legal expenses.

DeAngelo said he hopes the lawn care industry isn’t being singled out to buy the licenses. According to the borough of McAdoo, pest control operators and garbage collectors are among those required to pay the license fee.

DeAngelo said he’s just worried that the fees will keep going up. Since he operates in anywhere between 100 to 200 boroughs, the fees could get fairly steep.

"I never thought it (court case) would get this far. I was hoping the local people might back down. I hope the thing isn't dropped," he said.

DeAngelo may enlist some help from the Pesticide Public Policy Foundation and a group of pesticide users in Pennsylvania.

James Wilkinson, executive director of the 3PF, said he put DeAngelo in touch with other operators in Pennsylvania to see if they were running into the same problems working across municipal lines.

While this case might not signal an attack against the lawn care industry, Joe Nemetz of Davey Tree Co., Warrington Penn., said he wants to organize a group to determine which ordinances are legitimate.

"There's lots of ordinances popping up left and right. I want to find out if they're legitimate or if we're being singled out," he said.

The "pesticide users coalition" is in the beginning stages, but Nemetz said the group will definitely be statewide and may include surrounding areas such as Delaware and New Jersey.

The coalition will be a representative group from all segments of the green industry.

"Anybody who uses pesticides will be included. It will be a good support group for everybody," he said.

Nemetz said the organization will try to find some common ground with those regulating pesticide use so it doesn't become "us against them."

HIGH DEMAND FOR MILORGANITE CONTINUES

The Milwaukee Metropolitan Sewerage District has sold more than 3.7 million dry tons of Milorganite since commercial production began at the Jones Island Wastewater Treatment Plant in 1926.

The specialty fertilizer for turfgrass and lawns, flower beds, shrubs and ornamentals has been sold in all 509 states and in Canada, Venezuela, India, Puerto Rico, Japan and other countries.

Demand has been so high in recent months that the Milorganite inventory has hovered near zero, according to company officials.

The Milwaukee Metropolitan Sewerage District is the only sewerage agency in the country that markets nationally a heat-dried, granular fertilizer derived from sewage sludge.

Modernization and expansion of the district's Jones Island plant, part of the 19-year, \$1.8 billion Water Pollution Abatement Program ending in 1996, will boost Milorganite production by nearly 25 per-

cent; to about 75,000 tons a year. Construction of a Milorganite production complex, costing an estimated \$120 million began in 1987.

Beginning this year, Milorganite will also be available in five-pound bags. The convenient size bag will be offered along with the standard 40- and 50-pound bags.

In addition, Milorganite will soon be available on retail shelves in boxes.

A blend of Milorganite and other fertilizer materials under the proposed trade name Flourish, the new product is targeted at the growing consumer market for flower and shrub fertilizers.

"Introduction of Flourish signals the essence of our new marketing organization and new market focus," said Jerry A. Swanson, the district's director of marketing. "It's just one of several initiatives aimed at strengthening our position in the fertilizer business."

The Flourish product line, which has been tested successfully for quality and performance, will include a number of products designed to meet the needs of an array of plants. They will be test-marketed in select areas of the country beginning early next year.

"If consumers respond as we expect they will, the first trio of Flourish products will be available throughout the country in 1989," Swanson said.

ICI AMERICAS GAINS STAUFFER RIGHTS

Through the acquisition of Stauffer Chemical Company, ICI Americas Inc. has obtained the marketing rights to all Stauffer products in the professional and residential turf, nursery and home garden markets.

The Wilmington, Del.-based company will now market products such as Betasan[®] herbicide, Devrinol[®] herbicide, Eptam[®] herbicide, Imidan[®] insecticide and Vapam[®] soil fumigant.

NEW LEAF SHREDDER BENEFITS MULCH, COMPOST

With potential national environmental importance, the Vornado Leaf Eater was featured in a recent demonstration for municipal officials of Newton, Mass., as part of the city's pilot project on leaf composting.

Demonstration of the Leaf Eater, a leaf shredding device for homeowners, was conducted under the auspices of the City of Newton's Department of Public Works.

Use of this product is considered a possible adjunct to the city's pilot program being performed in collaboration with the

Massachusetts Department of Environmental Engineering. The Leaf Eater is manufactured by Vornado Power Products, a division of Armatron International, Melrose, Mass.

Newton Commissioner of Public Works James L. Hickey authorized the demonstration with the hope that extensive use of such equipment by homeowners may substantially reduce the volume and some costs involved with the annual leaf disposal by the city.

Powered by regular household current, the electric version of the machine shredded eight bags of leaves wet and dry into a single bagful.

Once shredded, leaves can be cleanly disposed of or used to make garden mulch or compost. The Leaf Eater handles 100 bags of leaves an hour.

Newton officials, impressed by the demonstration, said that selected neighborhoods had been provided with special biodegradable 30-gallon paper bags and that using the Leaf Eater, residents could reduce their leaf volume to 1/8th in size, or simply eliminate the need for disposal by pouring the mulch in garden areas.

The Leaf Eater shreds leaves and other garden refuse quickly and efficiently using flexible cutting lines like a string trimmer. An electric or gas engine supplies the power.

CLCA AWARDS BEST STATE LANDSCAPES

Tamura & Iwanaga Inc. of Morgan Hill captured the 1987 Sweepstakes Trophy for the best landscape project in California, ac-



Taylor residence in Hillsborough.

(continued on page 12)



Prentiss Pest-Asides

Prentiss Drug & Chemical Co., Inc.

Product Notes

NEW PRETOX® DZN 2.0 MEC PACKAGE

Pretox® D.Z.N. 2.0 MEC is now available in 60 fl. oz. Tip-N-Measure® Containers. This product is a micro-emulsion concentrate that contains two pounds of Diazinon per gallon. It offers numerous advantages over competitive products: lower odor than the usual 4 lb. per gallon Diazinon;

longer residual than Dursban® L.O.; stable for up to two weeks after mixing. The new packaging offers more accurate measurement of dosages—24 even doses at the 2½ fl. oz./gal. maintenance rate and 12 even doses at the 5 fl. oz. clean out rate per bottle. Contact your local PCO distributor for further information.

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NYALENE & TIP-N-MEASURE® are registered trademarks of CONTAINER MANUFACTURING CORP.
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Happy 70th

It's hard to believe that 1988 will mark the 70th Anniversary of the founding of Prentiss Drug & Chemical Co., Inc. by R.J. Prentiss and J. Miller. So much has occurred since the company started doing business in 1919. While Prentiss' business in the early days was centered around trading of chemicals, botanical drug raw materials and herbs and spices, the company was also in the botanical insecticide business. As we've said, so much has happened that we'd like to tell you more of the story in future Prentiss Pest-Asides. Right now, we would sincerely like to thank all of our customers for making our 70th Anniversary possible and the future for Prentiss so bright.

PRENTISS PRODUCTS NOW AVAILABLE IN 2½ GALLON PLASTIC CONTAINERS

To make using our products even more convenient and practical, we have now added 2 x 2½ gallon Nyalene® plastic containers to our product line. The following products will now be sold in this packaging instead of metal 5 gallon cans, but at the same price the 5's used to be.

EPA REG. NO.	PRODUCT NAME
655-492	Pretox® Vapon 20% EC
655-491	Pretox® Vapon 2 EC
655-536	Pretox® DDVP-Five
655-692	Pretox® Vapon 4E
655-457	Pretox® Diazinon 4E
655-459	Pretox® Diazinon AG-500
655-579	Pretox® Lindane 20% EC (Restricted Use Pesticide)
655-777	Pretox® 5# Malathion Spray
655-598	Pretox® Malathion 50% Emulsifiable Insecticide

This new packing offers several advantages: Less freight damage; Easier disposal after triple rinsing—containers can be cut up; And easier to handle since each container weighs less than half as much as a five gallon pail of the same product.

Government Regulations Update



SUPREME COURT FORCES OSHA TO EXPAND S.A.R.A. TITLE III COVERAGE

We think you should be aware of a recent Supreme Court decision that has the effect of forcing OSHA to expand coverage under Title III of the Superfund Amendments and Reauthorization Act of 1986. The U.S. Small Business Administration estimates that an additional 4.6 million businesses will now be covered by this regulation. Any employer (even a church employing a janitor who uses floor strippers) would now fall under this act.



Richard A. Miller

IN THE SPOTLIGHT

We are pleased to announce that Richard A. Miller, Executive Vice President of Prentiss was elected to the Board of Directors as well as Vice President of the Chemical Producers and Distributors Association at their Annual Meeting in August. Richard will serve a one year term as Vice President and a three year board term.

C.P.D.A. is an Association of about 50 companies involved in the manufacture, formulation and distribution of pesticides and chemicals to the agricultural and non-agricultural markets. The Association has been very active in this year's FIFRA (Federal Insecticide, Fungicide and Rodenticide Act) reauthorization hearings and has had considerable bearing on the outcome.

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NEWS

(continued from page 10)

According to the California Landscape Contractors Association.

CLCA judges selected Tamura & Iwanaga for its landscape installation at Tree Haven Family Park, a theme park under construction in Gilroy. Tamura & Iwanaga

landscaped two acres on the side of a man-made lake and on nearby hill slopes. Included in the winning landscape are native trees and shrubs, numerous flower beds, meandering streams, ponds, walkways, retaining walls made from natural rock and an observation platform. Karen Aitken was the project designer.



Rancho Santa Fe residence of Bob Richardson.

CLCA Executive Director Sharon McGuire said 167 projects were submitted for consideration. This is the 32nd year of the awards program. McGuire said judges spent two weeks traveling the state, visiting every site in order to name winners in each of 27 residential and commercial categories, plus eight special awards.

Among the winners were Landscape Resources Inc. of Fallbrook for the Rancho Santa Fe residence of Bob Richardson. The company was awarded the 1987 President's Trophy from the California Landscape Contractors Association for the best residential landscaping in the state. The designer was Wimmer Yamada & Associates, San Diego.

A post modern gazebo and open frame wall designed by Kenneth Lee Coverdell for the Taylor residence in Hillsborough earned Blue Sky Designs Inc. of Half Moon Bay the Special Effects Trophy. This award recognizes best use of unique methods or materials and/or special artistic effects.

CLAYTON LEAVES PLCAA FOR JOB AT PERMA-GREEN

Gary M. Clayton, director of technical services for the Professional Lawn Care As-

(continued on page 16)

Tuflex offers you a full line of tanks to solve your pest control problems, big or small. The experts at Tuflex carefully research and analyze your needs and assist you in designing and engineering the right tank and pump system to your specific requirements. Anything less would be a compromise solution.

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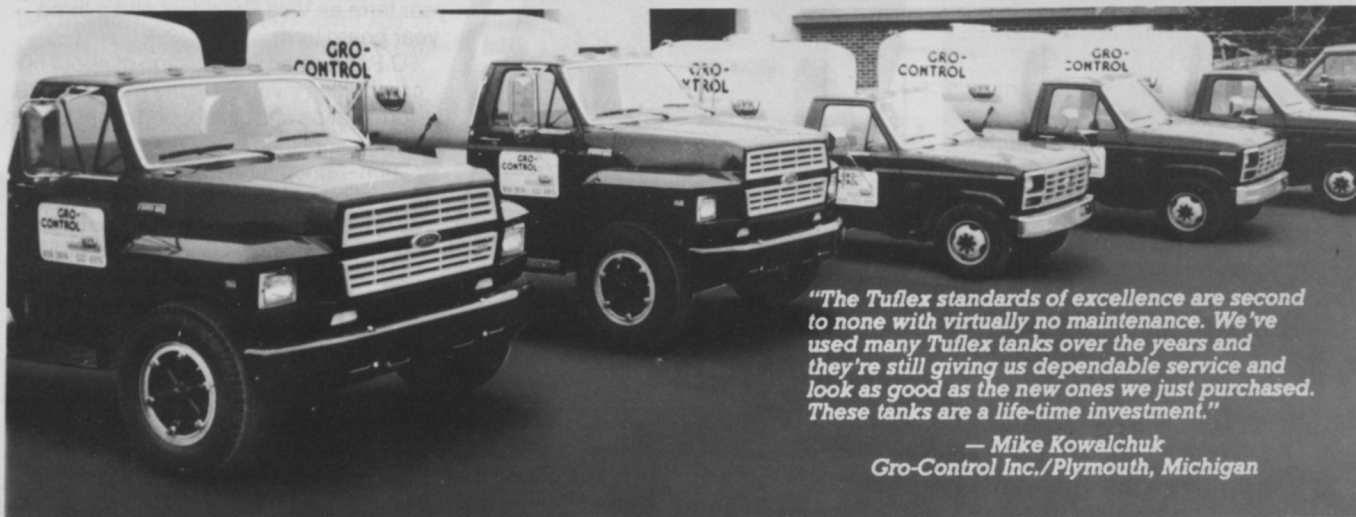
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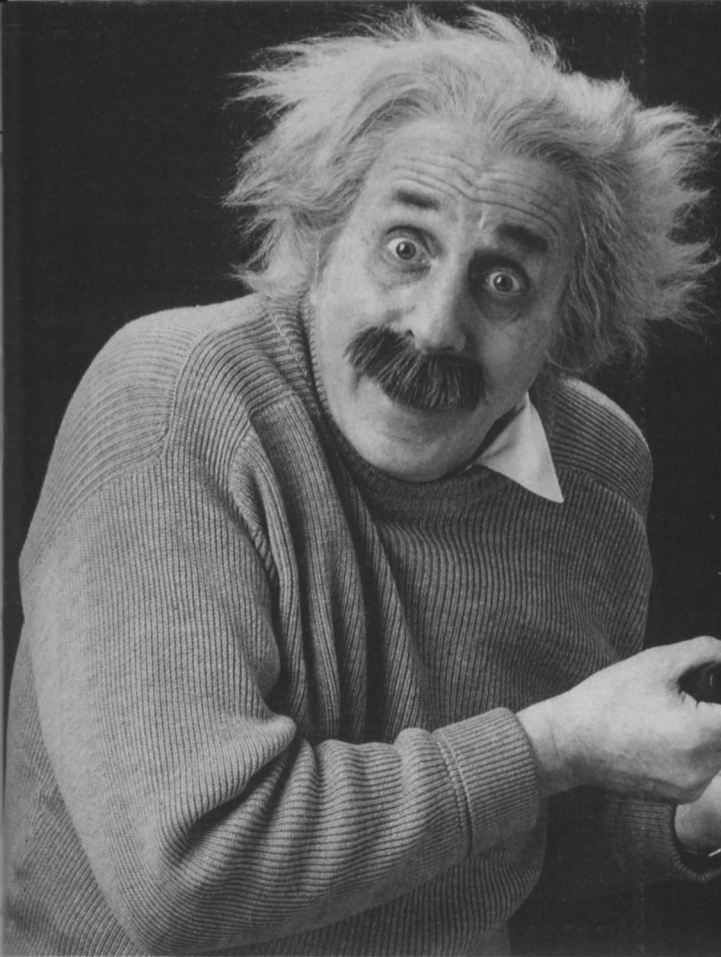
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NEWS

(continued from page 12)

sociation of America for the past 15 months, is resigning his post effective March 1.

Clayton, 33, is leaving the PLCAA to serve as Vice President of Operations at Perma-Green Lawn Company, Boise, Idaho. He fills the position previously held by Michael Spicer, who was recently named company president. Spicer became president after the death of former president and owner James Marria.

Marria, his wife Karen, Nick Ysursa and

John Stewart all died from injuries they suffered in a Denver plane crash. All four were from Perma-Green.

PLCAA Executive Vice President James Brooks said he has no particular candidate in mind, but hoped to fill the position within 60 days. The position is open to anybody, preferably in the lawn care industry. He added a candidate with an agronomic background would be optimal.

Clayton was the first to serve as the PLCAA's director of technical services and was responsible for the development and administration of training programs for the

membership, as well as serving as a technical liaison with university, industry, regulatory and allied association personnel.

It was Clayton's work with training programs, including several with Perma-Green, that led him to accept the new job.

"It's what I enjoy most, working in the training programs," he said. "I labored over the decision for two weeks — I enjoy what I'm doing here. It was a difficult decision to make at this point in my career."

Brooks admitted the news was difficult for him as well.



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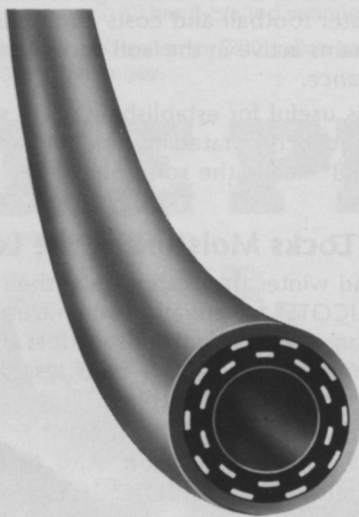
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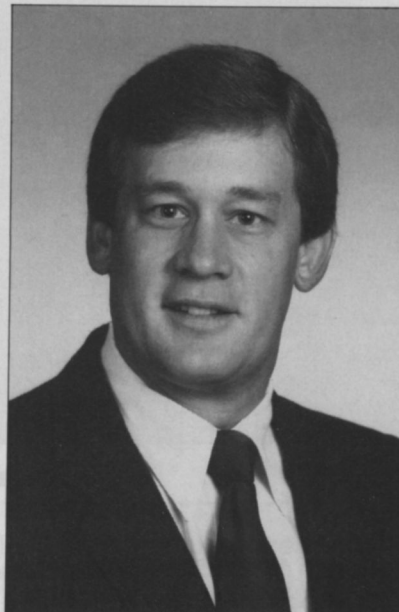
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Clayton

"I have mixed emotions. I'm glad he's going where he's going. Gary's a good person and will help Mike Spicer and the crew. But I hate to see him go," Brooks said.

Brooks said he will name Clayton's replacement after a PLCAA search committee has reviewed applicants and makes a recommendation.

Prior to working at the PLCAA, Clayton was turf and ornamental market specialist for PBI Gordon Corporation, Kansas City, Mo. From 1981 to 1985, he was operations manager for Bulkem Corporation in Normal, Illinois.

Clayton's primary function at Perma-Green will be staff training, but he will also be involved with budget forecasting and other financial aspects of the business.

"The PLCAA is wonderful. I was glad to be a part of it. It was a tremendous experience and I'll continue with it activity-wise. As part of a member firm, I'll do whatever I can do to help," Clayton said.

Anyone interested in the position of director of technical services should send their resume to Jim Brooks at the PLCAA, 1225 Johnson Ferry Road, N.E., Suite B-220, Marietta, Georgia 30068, 404/977-5222. The salary is negotiable.

Out in the cold. Everybody knows that winter weather can be cruel on turfgrass, but a blanket of snow is not nearly as injurious as ice, says the Lawn Institute. Snow cover, in fact, generally *protects* a lawn from Jack Frost's wrath.

During the winter season, the greatest damage to turf comes from fungi that cause snow mold disease. These fungi are almost always present and are activated by foot traffic. Skis and recreational vehicles like snowmobiles, which compact the snow close to the dormant or semi-dormant lawn-grasses, are culprits as well. Through such compression, infection occurs and results in large circular patches of dead turf. The Institute recommends that lawns which have had a history of snow mold should be protected by use of a fungicide during early winter.

Additionally, as ice melts it causes a rupture of plant tissue in and around the lawn-grass crown. This kills the grass in patches where ice forms and water is unable to drain off before freezing again. Now is the time to topdress depressions in lawns that collect water so that ice will not form and this type of winter kill can be avoided.

One for the book. Briggs & Stratton Corporation, Milwaukee, Wisconsin, has won a place among the celebrated pages of the *Guinness Book of World Records*. Briggs & Stratton, the world's leading manufacturer of small engines, has been honored for its very first product — a buckboard-like car called the Flyer with a two-horsepower Model D Motor Wheel.

According to Guinness, the Flyer was the most inexpensive mass-produced road car in history. This fact will be highlighted in an upcoming segment of the nationally syndicated television show, *Guinness Book of Records*, which is scheduled to air in mid-January.

"The Guinness people wanted to film a piece on the most expensive and inexpensive mass-produced cars ever built," said George R. Thompson, III, Briggs & Stratton's director of communications. "Their research showed that our Flyer, produced between 1920 and 1923, was the most inexpensive."

For the record, the most expensive automobile ever mass-produced is the 1931 Bugatti Royale, purchased at an auction for a staggering \$8.1 million.

The Flyer was considerably less, according to Thompson. "It varied in price from \$145 to \$225, and only about 2,000 of the two-passenger vehicles were ever produc-



ed," he said.

"The Motor Wheel, however, continued to power Briggs & Stratton products, including motor scooters, snow sleds, railway inspection cars and even rickshas," Thompson added.

Founded in Milwaukee, Wisconsin in 1909, today Briggs & Stratton produces air-cooled gasoline engines for the outdoor power equipment, construction, industrial and premium consumer markets. The company is also a major producer of automobile locks and keys, electric motors and ductile and gray iron castings. Briggs & Stratton products are found powering equipment in more than 85 countries on all seven continents.

A real ringer. Legendary golf pro Arnold Palmer presented a set of personalized clubs to Ringer Corporation's Joe Mann at the Seniors tournament recently held at the Harbor Town Golf Links. The gift was in appreciation of the Minneapolis-based company's contribution to improving Arnold Palmer Golf Management Company courses with their bio-organic Turf Restore.

Mann, Ringer's director of commercial sales, worked extensively with Palmer Company's superintendents to implement a program of turf improvement using Ringer's natural, non-toxic Turf Restore. The product reestablishes the natural biological balance in turf and soil. According to Ringer, its use has resulted in dramatic improvements in turf density, color and disease-resistance at Palmer-managed courses. Palmer Company's success with

Restore has led to an agreement by the Arnold Palmer Golf Management Company to use and endorse Ringer products.

Turf Restore, and its consumer version, Lawn Restore, are the flagships of Ringer's line of all-natural products. These include Restore for trees, shrubs, roses, flowers and vegetables. Non-polluting and non-toxic, the products provide sensible alternatives to the use of chemicals on commercial and residential lawns and gardens.

Wrong lawn. According to an article in *The Plain Dealer*, Cleveland, Ohio, ChemLawn Services Corp. has paid a Cleveland Heights environmentalist \$500 in damages plus \$10 court costs for mistakenly spraying her organic garden with lawn chemicals last April.

The case arose when a ChemLawn applicator began treating a weedy yard at the right address, but on the wrong street. "We made a mistake. We sprayed the wrong lawn," ChemLawn spokesman Steve Hardy told the *Plain Dealer*.

Margaret V. Grevatt, a founding member of the Council on Hazardous Materials and of the Northern Ohio Coalition Against Misuse of Pesticides, testified that the spraying caused \$400 damage to her organic garden, which she said she had been developing for the past decade.

The environmentalist said she would give the \$500 she received to the National Coalition Against the Misuse of Pesticides.

The environmentalist pursued her complaint in Small Claims Court without a lawyer. ■

PLCAA UPDATE

The Professional Lawn Care Association of America has reached its new member goal for 1987.

At the recent 8th Annual Conference and Show of the PLCAA it was announced that the goal of 300 new members had been reached with some room to spare.

Robert Parmley, chairman of the membership committee, said "we're real pleased to have met and exceeded our goal of 300 new members in 1987. I think it is a reflection of the overall professionalism of the industry and a desire to be a part of one's own national trade association."

In fact, over 350 new members join PLCAA in 1987, bringing the total membership to more than 1,300 — more than double the number of members two years ago.

Membership Services Chairman David Sek said that the many products and services of the organization are often a strong incentive for joining PLCAA. "With our new videos on liquid calibration and lawn aeration, together with new management

monographs on negative option and the immigration reform act, we have a wide range of training and management tools."

The videocassettes, "Liquid Calibration and Application Technique" and "Lawn Aeration," are both available from the PLCAA. The videos are \$50 each for members and \$75 each for non-members.

As part of its commitment to safety training, PLCAA, in cooperation with Milliken Chemical Corporation, Inman, S.C., has produced the 14-minute video on proper calibration and application technique.

The video, produced by Huntridge Video Productions Inc., is the winner of the Carolina Silver Reel of Excellence Award. Mat Hunt, president of the company, said the award was presented during a regional competition of the International Television Association.

Hunt, who heads the small video production company in Greenville, S.C., was impressed with the award since the video was produced completely in-house, unlike some

other entrants such as AT&T and GTE of the South.

"Lawn Aeration" describes the benefits of aeration on turf and how it can be achieved. Produced in cooperation with Salsco Inc., Cheshire, Conn., the 16-minute video will benefit lawn care companies using or considering aeration as part of their services.

Many more new training and management aids will be available in 1988 including the hazard communication video. PLCAA Director of Technical Services Gary Clayton said the video will detail compliance guidelines pesticide user groups must comply with beginning May 23, 1988. The regulation will require PLCAA members in all states to provide "right-to-know" information to employees and require members to comply with the Super Fund Amendment Act of 1986.

Among other things, the Act requires employers to submit chemical hazard information to state and local governments. The video is scheduled to be released in mid-February, Clayton said. ■

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move in tight for one-pass trimming all the way around obstacles. With either the 44" or 52" deck. Your garden tractor might take four or five passes to get the same close cut. It's this kind of maneuverability that helps you get your mowing done easier and up to two times faster than your garden tractor.

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PEOPLE

Pat McGinnity was recently named vice president for research and development, and **John Doyle** was named research and development specialist at Ringer Corporation, Minneapolis, Minn.

McGinnity will coordinate all in-house and subcontracted research and analyze efforts to expand the use of existing products, create multiple uses for new products, establish regional testing programs and oversee all product registrations.

Before joining Ringer, McGinnity spent eight years in the field of research and development, first with the Rohm & Haas Company, and most recently with PPG Industries Inc.

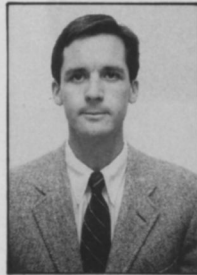
He received his Ph.D. in soil microbiology from the University of Minnesota.

Doyle will develop educational programs for distributors, initiate university testing programs and provide strong, technical field support for customers and users of Ringer products.

Before joining Ringer, Doyle served as



Cassady



Grosh

an assistant superintendent at the Northwood Golf Course, Dallas, and as a program coordinator for A-G Sod Farms Inc., Aubrey, Texas.

Ringer is a manufacturer of all-natural lawn and garden products.

Patricia Cassidy, Berwyn, Ill., has recently been named executive director of the Illinois Landscape Contractors Association. She previously worked as an executive administrator at Michael Reese Hospital and Medical Center, Chicago.

Before joining the association, Cassidy attended DuPage Horticultural School in

West Chicago and graduated with a certification in ornamental horticulture, with an emphasis on greenhouse production and management.

The Professional Grounds Management Society has given the coveted Gold Medal Award to **Robert B. Fisher** of Mount Vernon, Virginia.

The award is given for outstanding horticultural achievement. Only nine awards have been made since the society's founding in 1911.

Fisher has been assistant gardener at Smith College, student gardener at the New York botanical Garden Bronx, horticulturist at Mount Vernon Ladies Association of the Union for Mount Vernon and is affiliated with numerous green industry associations.

He has been a consulting horticulturist, landscape architect, garden writer and arborist in private practice since 1980.

Fisher is a longtime PGMS member and a past president of the society.

Four field representatives have been appointed to the total turf care division of the Lebanon Chemical Corporation.

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Paul H. Grosh will be responsible for turf care sales and service in upstate New York. In the last 10 years, Grosh has held positions in landscape management and design, golf course management, nursery management and most recently served as branch manager for a major lawn care company in the Northeast.

Patrick M. Handel will service distributors on Long Island and be responsible for the further development of the golf and lawn care markets in the area. During the last seven years, he served as a store manager for a major farm supply cooperative in New York state.

Brian McGuffin will be in charge of sales and service of turf accounts in Chicago and southern Illinois. He has 10 years of experience in both lawn care and golf course maintenance. For the past five years, McGuffin was a sales manager for a lawn care company in Illinois.

John L. Sosna, formerly a sales manager to a distributor of turf products in Nebraska, will be responsible for turf accounts in Indiana and southern Michigan. He replaces **James "Bud" Camp** who recently retired.

Sosna brings more than five years experience in developing lawn care

maintenance and golf course programs.

John Michalko is the 1987 Professional Grounds Management Society member of the year.

Michalko is the superintendent of grounds at Case Western Reserve University, Cleveland, Ohio. He is a longtime member of PGMS and was influential in founding the Northeast Ohio PGMS branch. He is currently president of that branch.

James P. Carroll and **Norman D. Tuohy II** have been appointed to the sales management team at Reuter Laboratories Inc. Carroll will serve as national sales manager and Tuohy as western divisional sales manager.

Carroll's responsibility will be achieving significant sales growth for Reuter by building distribution in key accounts — home and garden centers, as well as hardware stores.

As western divisional sales manager, Tuohy will cover a 13-state territory, boosting both distributor and consumer awareness of Reuter's natural pest control product line and concept.

Reuter is a biological research and marketing firm specializing in the develop-

ment, manufacture and sale of safe, non-chemical pesticides under the trade name "ATTACK."

Charles Almond has been appointed a district manager for the Turf Division of Rain Bird Sales Inc.

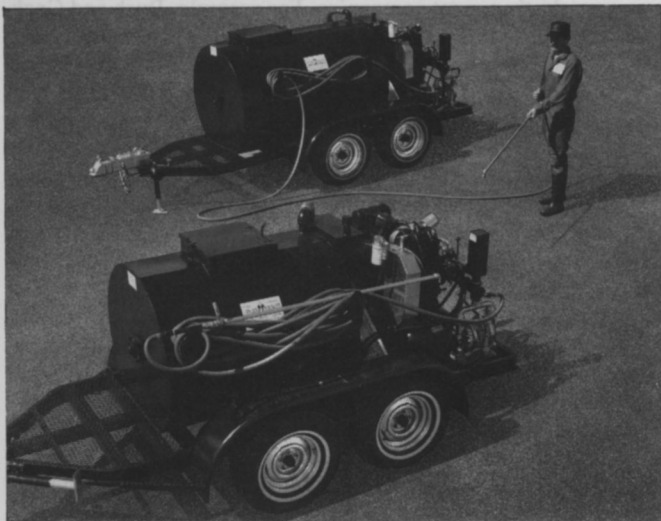
As district manager, Almond's responsibilities will include providing sales support to Rain Bird distributors and contractors and serving as liaison between Rain Bird management and landscape architects, irrigation consultants and city and county officials. His territory includes north and central Florida.

Almond previously spent 14 years in the pumping and irrigation industry, most recently working for a Rain Bird distributor in central Florida.

John Steed recently was named vice president of sales and marketing at Scag Power Equipment. Scag manufactures a full line of commercial riding and walk-behind mowers.

Steed comes to Scag with considerable experience in the lawn and garden industry. Prior to founding Alabama Outdoor Equipment Co. of Birmingham, Steed cofounded Virginia Outdoor Equipment and served as a district sales manager with Echo. ■

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Today most commercial manufacturers offer more than one financing source at the dealer level. Many set up national programs or work with independent leasing companies to accommodate their customers. Some of the larger suppliers even have credit corporations within their organization. Still, others admit they haven't designed a financing or leasing plan for their product line because LCOs seem to prefer doing business with a lending institution in their hometown that's familiar with the local economy. Furthermore, some operators choose to finance through a bank because it costs less in the long-run than leasing. Having the option of paying off a bank loan early rather than adhering to a lease's repayment schedule may also be more appealing to them.

Many manufacturers aren't afraid to lease equipment to new businesses, but all insist on working with an organization with good credit. After that, of course, the equipment you choose and the amount of your down payment will affect the amount of the payments over the term.

In many cases, companies tailor plans specifically for the lawn maintenance market with special incentives like lower payments during the winter months.

The following listing should help familiarize you with some of the financing and leasing plans that manufacturers are offering the professional lawn care operator in 1988.

BUNTON CO. This Louisville, Ky.-based company, a manufacturer of commercial mowers and trimmers, has a standard leasing plan which allows payments to be spread over a 12- to 60-month term on a minimum \$1,000 purchase. Bunton also offers a seasonal plan geared to the lawn care business where lower payments can be made six months out of the year. (Higher payments are made during the busy season when cash flow is better.)

Mike Packer, vice president of sales, said that both service contracts and parts from various manufacturers can be written into a Bunton lease. To apply for the plan, the customer simply documents his credit on a one-page form; naming a few trade and bank references.

At the end of the lease, a customer can either walk away or buy the equipment for 10 percent of its original lease value, explained Packer. That particular piece of equipment can also be traded in to reduce the cost of a new item.

When compared to financing, leasing offers the advantage of being fully tax deductible, he said. "When you go to the bank or a lending institution to borrow money, then only your interest is tax deductible and you have to depreciate your equipment."

With a lease you're also taxed on a monthly basis rather than up front. And, leasing doesn't tie up your line of credit at the bank.

Packer predicts that this "fairly new" program will become a popular option with Bunton customers. "I would guess that we're going to have 40 percent who will probably begin leasing equipment at some time. I think it's a program that can really be advantageous for this industry."

BUSH AND COOK LEASING INC. A few years back, their specialty involved leasing vehicles specifically to those in the carpet cleaning and small package delivery trades. But today, Bush and Cook, Wilmington, Ohio, is probably the best-known leasing organization serving the lawn care industry.

According to Mike Bush, account executive, Bush and Cook represents most of the major suppliers of turf maintenance equipment. He attributes this partly to the fact that the "low-key" company is able to take a few more risks than most companies. For example, Bush and Cook will lease to start-up businesses and does not require financial statements for credit documentation. Being knowledgeable about the industry, said Bush, gives him the edge on remarketing an item in the event that it's repossessed.

In addition to trucks, Bush and Cook leases everything from sprayers, mowers and aerators to tree care equipment. The company is also a good source for used equipment like spray trucks and spray mount units, said Bush.

Manufacturers that work with Bush and Cook typically provide the leasing company with a customer's name, telephone number and price of the equipment he's interested in. Bush will then contact the customer to discover what type of leasing plan he's looking into. "I'll see what's best for his company situation and then try to design a program to fit his needs."

Sometimes the customer will call the manufacturer with specifications on the equipment and truck, and Bush will locate it himself benefiting the customer with his *fleet buying power*. In other words, because Bush and Cook buys thousands of vehicles per year, the manufacturer offers a fleet allowance which means a vehicle will cost the leasing company much less than it would a dealer. Savings have ranged from \$500 to \$1,800, said Bush.

Down payments are usually made with 10 percent down, or the first and last payment. Terms last from one to six years. Bush and Cook also offers skip-payments, where a nine-month payment schedule eliminates charges during

"slower" months.

Some people prefer a low monthly payment and higher buy out at the end of the lease, said Bush. Others want just the opposite. Those who want to own the equipment at the end of the lease can use the purchase option that ranges from \$1 to 30 or 40 percent of the lease value.

Bush and Cook customers can apply for leasing and call in their credit information over the company's 800 line. "We plug that into a machine that tells us all about that customer's credit history. If he looks OK, we approve him. We usually don't get a lot of financial statements because it takes too long."

Approval is given within 24 hours. According to Bush, the company is basically looking for someone who has borrowed money and paid it back as requested. "We take start-up businesses if a guy's paid his bills in the past. We deal with anywhere from a Ma and Pa (operation) to the biggest in the industry. We've got some companies that have 50 to 100 trucks, but others are just starting."

Advantages to leasing are a low initial investment and lower monthly payments, sometimes as much as 30 to 40 percent, said Bush. "It keeps your borrowing power open at the bank for things that don't depreciate. You can write off your monthly payments and you're paying for the equipment as you use it instead of paying for it all at once."

CUSHMAN-RYAN. Simplicity is the key feature with the new leasing service from Cushman-Ryan, Lincoln, Neb. For leases up to \$15,000 there is a one-page application form to complete, and the manufacturer can usually have approval to the dealer within 24 hours, said Terry Waak, general accounting and credit manager.

Waak feels that leasing is a sensible method of financing equipment since the Tax Reform Act of 1986 was passed. "Leasing lets the customer obtain the equipment needed, using operating funds instead of capital funds," he said.

Under the plan, which was introduced October 1, lease terms are available from 12 to 60 months with *level payments* — installments made in equal amounts over the period. Rates under the program are competitive, ranging from 13 to 18 percent depending on the amount and duration of the lease term.

Cushman-Ryan also offers a new "Six Plus Six Program" for seasonal businesses, allowing for higher payments dur-

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ing the summer "earning" months and lower payments during the off-season.

Waak added that leasing is one method that can be used to pay for the equipment that will help free up capital funds. "Instead of using capital funds, you can use operating funds and possibly get more equipment through the same dollars."

ENGLAND & ASSOCIATES. At England & Associates, Largo, Fla., customers can choose from four available lease plans, said President Jim England. "If you are a new business, somebody without a track record, we have a company that is more in tuned to new businesses, because many leasing companies will not touch a new business."

England & Associates markets asphalt seal coating machinery and related asphalt maintenance equipment. It recently designed two new Paveman Sand Slugger sealcoating machines specifically for lawn maintenance contractors.

LCOs can purchase the Sand Slugger through the England & Associates lease program, and the company will throw in complete training that includes use of the machine as well as marketing and sales techniques.

No matter how long you've been in business, if you want to lease, you must have good credit, said England. Newcomers (with good credit) can lease with 10 percent down on a two-, three- or four-year lease plan. At the end of the lease, they pay 10 percent and the equipment is theirs to keep.

Existing businesses, those who've been in operation for two years or more, can put down the first and last month's payment and buy out the equipment at the end of the term for 10 percent of the lease value. There is also a \$1 buy out option.

Customers furnish England & Associates with their financial statement and the company then runs a credit background on them. "Sometimes we don't even ask for a financial statement from them; it depends on their credit. It also depends on the amount of the lease."

England sees leasing becoming a popular option. "Companies that specialize in equipment leasing are more apt to give you the money than a bank," he said. "A bank will give you the credit, but may not know anything about the equipment, and doesn't want to know."

EXCEL INDUSTRIES. John Harrison, marketing manager of Excel Industries, Hesston, Kan., explained that financing usually takes place through the company's dealer network throughout the United

States. However, it seems the customer often prefers to do business with his local leasing agency. "They're always searching for better rates or they're a little more comfortable doing it in a local area."

Typically, local dealers help the customer fill out a leasing application form on which he lists bank references and the cost of the equipment he wants to purchase. Harrison said there's a formula printed at the bottom of the form that helps the applicant calculate his monthly payment.

Leasing is usually nothing more than a tool that takes expensive equipment and puts it at a more affordable price, explained Harrison. "The customer usually isn't in a position to make a cash outlay of \$10,000, but he can justify putting \$2,000 or \$3,000 down, borrowing \$7,000 and making payments on it for 24 months or whatever. At the end of that time the equipment becomes his."

EXMARK MANUFACTURING CO. INC.

Established lawn care businesses can take advantage of a new in-house leasing program from Exmark Manufacturing Co., Beatrice, Neb.

The program is available for the company's entire line of commercial power equipment including mowers and turf rakes. Customers can opt for a standard 12-, 24- or 36-month lease, said President John Smith. Also available is the 6 Plus 6 leasing program (36 months) which offers lower interest rates from October to March.

The Exmark customer has the option of purchasing at the end of the lease based on 10 percent of the equipment cost; or its fair market value. He may also return the equipment to the lessor.

Only one bank reference and three professional references are required for leasing applications under \$15,000. As little as \$1,000 worth of equipment can be leased over a period of three years.

Twenty-four hour approval is given on most applications, and a one-time documentation charge of \$40 is added to approved leases.

Those interested can fill out a leasing application at any Exmark dealership. "The dealership in turn calls us with the information and we relay the information to the Leasing Service Corporation," Smith said.

GREEN PRO SERVICES. Green Pro Services, Hemstead, N.Y., works with two leasing companies — J.D.S. Leasing and National Marketing Network. Generally, people who are eligible for the company's leasing plan have been in business for at least two years, said Joe Miller, customer service representative. However, newcomers can have someone cosign for them.

Lawn care operators can acquire multi-tank spray units through Green Pro. "The leasing company that we're working with can get things going with a phone call,"

Miller said. "In other words, if a guy calls us and wants to lease a Trident, I get just basic information from him and call the leasing company. Things started right away with that phone call. You're not talking about any huge length of time while you wait for things to happen."

Miller said leasing has two key disadvantages. Number one, this type of financing costs more than borrowing money from a bank. Secondly, a bank loan can be paid off early, resulting in less interest owed, while a lessee must stick to the repayment schedule. "If you have a five-year lease and you pay it off in four years, you're refusing your obligation because you still owe them the full amount of the lease. It depends what's best for the customer."

Miller ventures to guess that about one-third of the Green Pro customers make use of their financing plan. Others opt for a personal bank loan. The company's Trident sprayer is usually leased while the smaller and less costly Dolphin spray unit is bought outright.

JACOBSEN DIVISION OF TEXTRON INC.

Jacobsen Division of Textron, Racine, Wis., writes all of its leases and conditional sales contracts through Textron Financial Corporation. The lease program is offered to end-users through the company's equipment distributors, said Ralph Nicotera, sales manager for turf care products.

The total line of Jacobsen turf products is available to purchase under a lease for a period of one to five years. The company will also accept start-up businesses with the proper financing documentation. "We look at it for people just starting out in business or for those who want to preserve their credit line with a bank and can actually afford the monthly payments on equipment versus one lump sum due right away."

Financing plans include a conditional sales contract where the customer assumes ownership of the equipment right away, and a lease where he gets the use of the equipment right away, but can trade it back in for something else at the end of the term. Other Jacobsen options include six- and nine-month skip payment plans.

In the past, the company has also offered special finance rates on certain units. Last year, Jacobsen offered a 5.9 financing for three years on a few pieces of equipment.

JOHN DEERE. John Deere, Columbus, Ohio, is a full-line finance company and has a variety of financing plans for customers depending on what type of equipment they're interested in. Doug DeVries, division manager of sales finance, describes John Deere as a *captive finance group*. In other words, the company offers its retail-financing alternatives and leasing alternatives through in-house plans.

When applying for a financing plan, customers must complete an application

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form that allows the company to judge their ability to assume a payment schedule. "We ask the purchaser to give us some pretty basic information about who they are, and let us make some judgments regarding their ability to accept a line of credit," DeVries said.

For commercial applications, John Deere will use either retail contract financing or leasing. "Depending on the amount that's financed or the type of product, we would offer different incentives." In addition to skip payments, some incentives include low, fixed rate financing and a waiver of finance charges for a period such as three to six months. "It allows the customer to make only principal payments during that time and avoid finance charges."

DeVries said interest rates are, to a certain extent, what makes up the difference between financing and leasing. "With leasing on a commercial application you're able to avoid a big up front payment. You essentially pay for the usage of the machine but give up some of the equity you would normally gain by making larger payments on the retail installment-type contract."

MINNESOTA WANNER. Most people doing business with this Minneapolis-based company buy spray trucks outright, said Tom Wanner. "Our customers are pretty well-established companies." About 10 percent do lease, but those that are interested are usually referred to GMAC (General Motors Acceptance Corporation) or another independent leasing company like Bush and Cook Leasing.

"Many times the customer prefers to lease in his own community with a company that's more familiar with his own economic situation," said Wanner. "It depends on the equipment. We'll suggest a number of options."

PERMA-GREEN SUPREME. Tom Jessen, president of Perma-Green Supreme, Crown Point, Ind., estimates that as many as one-third of his customers choose to lease his low-volume spray units. Perma-Green offers its financing program through Bush and Cook. "It's been very successful for people to lease," said Jessen. "It's been a popular option that they've been taking advantage of quite regularly," he said.

Jessen gives Bush and Cook high marks. They've been able to work with people very well in obtaining the trucks at good prices that makes the lease package attractive, he said.

Perma-Green manufactures truck-mounted lawn spray equipment. The company will lease both the truck and the equipment, put it into one package, and spread the payments out for 48 months with a minimal down payment. A standard lease calls for the first and last payment in advance and a buy out of the equipment specified at the end of the term.

Jessen points out that many LCOs cannot get a bank to finance sprayer parts. Lending institutions are reluctant to finance spray equipment because they have no recourse if they have to repossess it, he said. "What would a bank do with a lawn sprayer? If they have a truck covered they can easily handle that kind of a repossession."

In comparing leasing, bank financing and outright cash purchases, Jessen feels leasing is a very sound way of financing equipment. "I think it's a mistake, especially when it's a new company or a company that has limited cash reserves available, to shell out all the cash to purchase the equipment that will then pay for itself over the course of several years. It makes much more sense

to me to allow the equipment to pay for itself as it goes, making each payment. The cash is much more valuable in pocket."

The GL 3,000 and XL 2,000 are two of the most popular spray units, said Jessen. However, the most likely-to-be-leased item is the van unit, he added. "A unit that would be listing out at around \$17,000 to \$18,000 for (both) truck and equipment would be leased in the neighborhood of \$450 a month. The buy out would be somewhere in the neighborhood of \$4,000 at the end of the lease on a 48-month lease."

A unit in the \$14,000 price range, including the truck, would be approximately \$350 dollars per month with a \$2,400 buy

(continued on page 56)

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PLCAA'S WESTERN ROUNDUP

A record number exhibitors filled the San Antonio Convention Center for the 8th annual lawn care conference.

Making its debut appearance in the West, the Professional Lawn Care Association of America treated exhibitors and attendees at the 8th annual conference and show to a quality production.

Nearly 1,250 attendees representing more than 850 lawn care companies participated in the three-and-a-half day event held in San Antonio, Texas.

Held for the first time over a weekend, PLCAA Executive Vice President James Brooks said he was generally pleased with the results. The show set a record in exhibitor displays, with 163 appearing. The previous high came last year in Baltimore when exhibitors numbered 159.

Although attendance was lower than expected—500 less than last year—Brooks said he was impressed with the caliber of attendees.

"We definitely had a good contingency. Quality people are more important. The exhibitors want to see quality buyers," he said. "There's always a few exhibitors that don't have their expectations met, but we think everybody was fairly happy."

While the location of the show may have affected attendance somewhat, Brooks said, he doesn't regret holding the show in San Antonio.

"We went to San Antonio because we didn't have a lot of exposure in Texas. The economy of Texas was in good shape; it's really rolling along," he said. "When you bring attention to a city, it will increase your visibility. We're (PLCAA) strong in the East and Midwest, but not in Texas."

That statistic changed in San Antonio as local attendance at the show was up. Some numbers were lost from the Northeast, but the PLCAA picked up in attendance from California and the Southwest.

PLCAA Assistant Executive Director Douglas Moody said the San Antonio show also brought in a number of non-member attendees. "We're not only getting a loyal following from our own, but we're getting new blood," he said.

Because of the location, many companies probably made the decision not to bring as many employees to the show,



RAIN COULDN'T KEEP THEM AWAY

A downpour of rain the morning of PLCAA's Outdoor Equipment Demonstration wasn't enough to dampen the spirits of those who attended.

PLCAA Assistant Executive Director Douglas Moody said exhibitors were skeptical of the stormy forecast, but were pleasantly surprised by the turnout.

More than 250 lawn care professionals gathered at San Antonio's Brackenridge Park to get personal experience in operating the equipment of about 24 dealers. Everything from mowers, blowers, seeders, aerators, pumps, sprayers and pruners to edgers and sweepers was operated and tested.

It was the third year for the outdoor demonstration which is quickly becoming a favorite of show attendees.

"No matter how long you look at the equipment on the floor, there's nothing better than operating it yourself," Moody said. "The rains came, but as soon as it stopped, people climbed back on the machinery and kept going."

The Sunday morning demonstration was easily accessible due to the shuttle buses which ran almost continually from the convention center to the park, a short distance away.

Exhibitors participating in the demonstration were: Billy Goat Industries, C & S Turf Care Equipment Inc., Clark Sales & Service Inc., Cushman-Ryan/OMC Lincoln, Encap Products Co., GNC Pump Inc., Green Pro Services, Hahn Inc., Industrial Services International, Ingram Kut-Mor Co., LESCO Inc., Minnesota Wanner Co., North American Micron,

Olathe Manufacturing Inc., Perma-Green Supreme, Pro Power Products, Professional Tree & Turf Equipment, Salsco Inc., Snapper/F.D. Kees Manufacturing Co., Spraying Devices Inc., Terracare Products, The Toro Co./Goldthwaite of Texas Inc., Turfco Manufacturing/Kinco/National Mower and Westheffer Company Inc.

While there's been talk of running the outdoor demonstration concurrently with the trade show and seminars, Moody said, he's not sure there's a real need for it.

"We divide the attendance at the trade show already with the educational seminars. If we run the outside demo at the same time, we'll split it again," Moody said. "At the size we're at, it wouldn't be feasible. We don't have 100 percent attendance now (at the outdoor demonstration), but it seems to be working OK."



An exhibitor tries out some equipment.

On the trade floor (below), exhibitors and attendees take the opportunity to share ideas with one another. A show attendee (right), seeks information on CoRoN, a new slow release fertilizer.



according to Brooks. However, the PLCAA will return to the West in two years, when Las Vegas will be the site of the convention.

Mixed reviews were received about holding the show over the weekend. Because most people were planning some extra time for themselves at the show, good weather combined with the allure of the city drew people away from the trade floor on Friday afternoon, Brooks said.

Next year's show won't be held over the weekend, but only because of the availability of the Superdome in New Orleans. Brooks said PLCAA's conference and show committee will discuss the possibility of future weekend shows.

At any rate, Brooks said, he would make a suggestion to change the format of the last day of the show.

"On the last day of the show, maybe we could open (the trade floor) early and close early. Let the seminars hold the burden of keeping them (attendees) there," he said. "Let the strength of the conference rest on education. Exhibitors pay good money and we have the responsibility to maximize traffic."

The new three-track educational program designed to offer convention-goers a wide variety of sessions was a success. Attendees had the option of attending a specific educational track in business, landscape management, agronomy and maintenance, or bouncing back and forth between the tracks.

The educational sessions were intentionally expanded to reach a broader spectrum of its membership, particularly its growing landscape management segment. While the expanded educational track spread attendees over more sessions, it did not negatively impact attendance.

In fact, seminar rooms were filled to capacity in most instances.

A popular speaker almost everywhere he goes, Dr. Lawrence Kokkelenberg captivated the audience with his presentation on "The Total Lawn Care Organization."

Kokkelenberg compared lawn care companies to a social system of people. He said if one aspect doesn't function properly, the whole organization is affected.

But it didn't used to be that way. He discussed how the industry used to be technically-driven. With growth, however, came a market-driven industry. Customer service became an integral part of the industry.

The changes don't stop there. By 1990, Kokkelenberg is predicting a major shakeup in the green industry where growth will come with downsizing and increased efficiency, rather than expansion. Quality will become more important than ever.

"We went to San Antonio because we didn't have a lot of exposure in Texas. The economy of Texas was in good shape. When you bring attention to a city, it will increase your visibility." —James Brooks

To prepare for this, a change must develop first within the organization.

"Most companies today are overmanaged and underled," Kokkelenberg said. "Are you attempting to build a quality staff? Will people follow you?"

Sometimes a shakeup within your own company is needed to determine whether the organization's goals and mission are being accomplished. Kokkelenberg suggests looking at the company's social system — problems generally show up there first.

"Winners let attitude control the circumstances, while losers let circumstances control their attitude," he said.

PLCAA's opening session speaker Roger Staubach also stressed building your company from within. Although Staubach is most known as one of the top quarterbacks in NFL history, he's now an established businessman.

"There's no shortcuts to success," he said. "In business, there's many parallelisms to athletics. You have to keep a foundation and balance or you can destroy yourself from within."

For the most part, Staubach stuck with the subject he knew best — football. He didn't seem to disappoint the crowd, however, as more than 150 people waited in line for his autograph after his speech.

An "Ask the Experts" roundtable gave show-goers the opportunity to meet respected industry researchers and company representatives on a somewhat informal basis. Brooks said he wanted to make the session even more informal next year by let-

A TIME FOR CELEBRATION

Wary from spending hours on the PLCAA's trade floor and in seminar rooms, show exhibitors and attendees still found time to party at the end of the day.

Every year manufacturers that supply the industry with tools of the trade, show their appreciation for the industry's support of their products by treating key buyers to a celebration at the conference and show.

And this year was no different. While the celebrations may have been in smaller doses than previous years, it's safe to say that a good time was had by all.

Kicking off the festivities was the Earlybird Reception sponsored by the PLCAA. Throughout the next three days of the show, hospitality suites, a down-home-style rodeo, and a dinner with the president of the U.S. followed.

The PLCAA's Mexican reception was complete with a mariachi band, pinatas and spicy Mexican foods. It was a chance for friends to catch up on old times as well as an opportunity for newcomers to meet industry personnel.

Another treat for a large number of showgoers was a night at the Rio Cibolo Ranch sponsored by The Andersons.

The ranch was the perfect setting for first-time Texans to let their hair down and enjoy a real-live rodeo. And if that

wasn't enough, a barbecue, casino, dancing, raffle and armadillo race were included in the package.

All Anderson casino proceeds (play chips and certificates), went toward a night-ending raffle. Although more experienced gamblers went home benefiting from the fruits of their labor, no one went home empty-handed. The Andersons made real cowboys out of the group, adorning attendees with hats, bandannas and boot mugs.

Last but not least was a "Triumph in 88" dinner with the president. Sponsored by Ciba-Geigy, the dinner was held to promote the company's new Triumph product. After 10 years of university and Ciba-Geigy tests, Triumph received approval from the Environmental Protection Agency to market the insecticide exclusively to professional lawn care operators for control of grubs and other turf insects.

While the red, white and blue balloons, banners and hats might have been enough for some, Ciba-Geigy brought the president to the celebration. OK — so it wasn't the real president, but close enough. He looked like him, talked like him — even told jokes like him.

The Reagan impersonator was played by Jay Koch from a Burbank talent agency.



Keith Hundt of Nutri-Lawn takes a break from the action to get his shoes shined.



Lawn care operators discuss the latest industry news and exhibits on the San Antonio Convention Center trade floor.



Ciba-Geigy invited dealers and customers to celebrate the introduction of its new insecticide Triumph.

ting attendees sit down with panel members on a one-on-one basis.

In addition to the knowledge gained from the variety of seminars, the PLCAA contributed to the ongoing education in the lawn care industry by introducing two new videos. The videos, "Liquid Calibration and Application Technique" and "Lawn Aeration," are both available from the PLCAA.

In cooperation with Milliken Chemical Corporation, Inman, S.C., the PLCAA has produced the 14-minute video on proper calibration and application technique. The proper calibration and good applicator techniques have an impact on the ultimate results of application of legal dose rates, health and environmental effects of over-applying products, number of service calls, customer satisfaction and the cost effectiveness of the products.

"Lawn Aeration" describes the benefits of aeration on turf and how it can be achieved. Produced in cooperation with Salsco

Inc., Cheshire, Conn., the 16-minute video will benefit lawn care companies using or considering aeration as part of their services.

At the PLCAA annual meeting, four new members were elected to the board of direc-

tors. Newly elected members are: J. David Fuller, president of Fullcare Turf Maintenance, Louisville, Ky.; Richard Miller, president of Ever-Green Lawns, Golden, Colo.; Richard Steinau, president of Greenlon Inc.,

Cincinnati, Ohio; and Richard White, division vice president for Service Master/Lawn Care Division, Wheaton, Ill.

Officers chosen to serve the board in 1988 are: President Russell J. Frith, president

INDUSTRY MOURNS LOSS OF COLLEAGUES AFTER FOUR DIE IN DENVER PLANE CRASH

When Continental Flight 1713 flipped upside down and skidded down an icy runway in Denver last November, the lives of many people in the lawn care industry were changed forever.

In that flight, bound for Boise, Idaho, the Professional Lawn Care Association of America lost several of its key members, and dear friends.

Among the 28 killed in the plane crash — the worst in the 58-year history of Stapleton International Airport, Denver — were James and Karen Marria, Nick Ysursa, 35, and John Stewart, 32 — all representing Perma-Green Lawn Company, Boise, Idaho.

The Marrias were hospitalized for a short time after the crash. Karen Marria, 36, died Nov. 16 and James Marria, 38, died Nov. 17. Two other employees, Michael Spicer, 27, and Doug Self, 29, were not seriously injured in the plane crash.

Other survivors of the crash include Tom Denker and Barbara Hooper who were representing Evergreen Landscape of Ketchum, Idaho, at the PLCAA conference.

Since the death of Perma-Green's president, Spicer has been named the new president. He said the company will continue to function as it has in the past.

Jim Marria had served the PLCAA for several years, most recently as its president in 1986. Prior to that he had served as vice president, secretary/treasurer and director. PLCAA Executive Vice President James Brooks credits Marria with much of the current success and financial stability of the association.

Jim and Karen Marria co-founded Perma-Green in the mid-70s after moving back to Boise from Gaithersburg, Md. Ysursa was Jim Marria's brother-in-law and served as the company's Boise branch manager. Stewart was director of technical services.

According to reports after the Nov. 15 plane crash, the plane veered left, then right before the right wing hit the ground, causing the plane to flip over on its back. It broke into three pieces as it skidded down the runway about a quarter-mile, trapping some passengers inside and throwing others clear.

At the time of the accident, airport officials said the weather conditions were typical of winter operations at the airport. The plane was said to have been de-iced 26 minutes before takeoff.

However, after the accident, witnesses and survivors said it looked as though the airplane's wings had iced up again prior to the takeoff. The aircraft's voice and flight data recorders have been recovered and are in Washington for analysis, according to reports.

Spicer did not want to talk about the plane crash itself, but detailed the events leading up to the group boarding the plane:



James Marria

"Originally we were on a United flight. We were leaving from San Antonio coming back from the lawn care convention. There was a total of six of us that were representing Perma-Green, and we got behind on United due to some mechanical problems that they had on the airplane. So we were three hours late coming out of San Antonio which put us behind in our connection in Denver. While we were waiting in San Antonio, we called ahead and got on a Continental flight. We thought we basically missed it too because it was supposed to leave earlier than we got to Denver, but it was delayed I think, coming out of Kansas City so we ended up making the plane. That's how we switched planes and even made it to begin with.

"We were all pretty well split up — Jim and Karen were sitting together. Doug was sitting two rows behind Jim and Karen and Nick (Ysursa) was three rows back in row 10. John (Stewart) was in row 16 and I was all the way back in row 24. We were kind of spread all the way through the plane."

About three months before the trip, Jim Marria considered flying the group to San Antonio in the company plane, but later decided it was cheaper to fly commercially, Spicer said. Marria was an accomplished pilot who used aviation extensively in his business. He held an instrument and multi-engine rating.

Relatives, friends and PLCAA members were devastated by the crash. More than 500 people attended the Nov. 23 funeral in Boise's St. John Cathedral.

"It was such a fluke accident to start with. I've never heard of a plane flipping over like that," said Des Rice, president of The Weed Man, Ontario. "He was just the nicest guy you'd want to meet. It was just yesterday that I said, 'See you next year.'"

PLCAA Director of Technical Services Gary Clayton said it was obvious by the attendance at the funeral that the Marrias had a tremendous impact on their community.

Prior to becoming president, Spicer served as the company's vice president of operations. Spicer has been with the company since its beginning.

"I've been with the company since...actually I was the first employee. I started out as a technician," he said.

Perma-Green recently celebrated its 10-year anniversary. Spicer said the company is currently trying to fill some vacancies within the company, but said he doesn't expect any major changes in the company's structure.

"As far as Perma-Green's concerned, we're going to keep it in operation. We're not for sale," he said. "There's a lot of rumors about that floating around. We'll staff the people we need to through our corporate office and we'll go on."

The company majority shareholder and owner is John Marria, Jim Marria's father, Spicer said.

"From a company standpoint, it was a shock to everyone. Perma-Green was a very close company in the way of owner relationship to employee relationship, so I think from management to even the technicians, it was kind of a shock to everybody," he said. "But on the positive side of that, everybody's basically in 120 percent, and striving to make sure Perma-Green remains a success. We've received very good support from everybody.

(continued on page 56)

of Lawn Doctor Inc.; Vice President Roger C. Funk, vice president of technical and human resources for The Davey Tree Expert Company; and Secretary/Treasurer Robert Parmley, Chicago division manager for Barefoot Grass Lawn Service.

Bruce Fowler, general manager of the franchise division for ChemLawn Services Corporation, was appointed to replace Director John Kerr of ChemLawn Services Corporation, who resigned from the board last fall.

While there's been talk of the Professional Grounds Management Society and the American Landscape Contractors Association joining the PLCAA in its annual conference, Brooks said, the option won't be considered fully until the 1989 conference.

The proposal has received praise from members of the organizations and the industry, but Brooks said, the idea hasn't been discussed in enough detail to try and implement it for the November show.



The show's educational seminars were well attended.

Brooks said he was excited about plans for the 9th annual show to be held in New Orleans. "It's definitely a convention draw city. The Superdome was prime for the picking," he said.

The show is scheduled for Nov. 7-10.
— Cindy Code

The author is Editor of ALA magazine.

REMEMBERING JIM AND KAREN MARRIA

By James R. Brooks

All of us have our special thoughts and reflections after the loss of someone special...a relative or a friend. My mind was flooded with special memories of Jim and Karen Marria as I flew back from Boise. I'd like to take editorial license and share my thoughts, memories and impressions with you about the Marria's.

I always looked forward to that familiar greeting, "Hi James, how are you?!" It was always given by Jim with a broad, sincere smile and a firm handshake. I don't remember why we started calling each other by our given name "James," but we did...and it was always special. And I could always count on a firm hug and peck on the cheek from Karen whenever we met. They were such a great-looking couple, and always made you feel better when you were with them. They seemed to continuously wear a smile, and it was infectious!

The only times I can remember Jim not smiling was when he presided at the Opening Session at the second Tampa Conference & Show (he was genuinely nervous), and when the board of directors meetings went too long. Even though he generally had the farthest to travel, Jim never missed a board of directors meeting in six years of service; nor did Karen at the summer "wives" meeting or the Conference and Show.

The other wives loved Karen, as she was always "ready for the program." She was a natural leader among the women, and constantly had a unique idea to make the day's activities more fun. Both Jim and Karen taught many of us the value of hav-

ing a good time with life...even if it was no more than a joyful ride on an overcrowded San Francisco cable car.

I never knew anyone who could read and accurately analyze a financial statement as well as Jim Marria. He played a major role in establishing the financial stability of the PLCAA. Jim had a wonderful ability to criticize and always make it seem like a suggestion. I got the credit for good "fiscal responsibility," but Jim played a key role in getting us there...without asking for any recognition.

Jim and Karen always treated Marilyn (my wife) and me as colleagues and sincere friends...even though I was only an employee of the Association. The importance of this relationship was brought to mind again when I met the staff in Boise after the funeral. Even in their grief-stricken numbness, it was obvious that each and every staff member mourned the loss of friends and colleagues...not just employers. Even though he was the "boss," he and Karen always treated everyone with warmth and dignity.

Looking around the new Perma-Green offices, which Jim was so proud of, I could see the numerous touches which were so much a part of Jim...the jogging clothes and shoes in his private bathroom, the PLCAA President's gavel plaque behind his desk, and the speaker phone I used to always kid him about using. When we would call each other, I would tell him that, "it sounds like you're calling all the way from Boise!" He would laugh that great Marria laugh and pick up the receiver saying, "You don't like that thing, do you James?"

The office kitchen had among its appliances the popcorn popper. Jim loved popcorn! On my last visit a couple of years ago, we popped up a big bowl of Idaho popcorn while we chatted about PLCAA business. I mentioned that I would send him some Black Jewel popcorn from Indiana, which I particularly liked. After receipt of my "corny" gift, Jim wrote me a short note saying, "James — Thanks for the Indiana popcorn, but I think we'll stick to the Idaho variety!"

Jim and Karen loved Idaho and everything about it. We called Jim the "man from Boise," and he was always flattered and proud that we did. As I left the offices, I thought of Karen and her special decorating touches that were so evident in the color schemes and the way Jim's office was arranged. The decor mirrored their personalities and lifestyles...unpretentious — yet beautiful, vibrant and definitely first-class.

Sometimes there are events that occur that we do not fully understand or immediately realize the impact of...like the death of a star in the cosmos. Such an event occurred in our small lawn care industry...for we have lost the quiet light of one of our brightest stars in Jim Marria, along with his wife, Karen.

I don't remember who said it, but "Friends are family you choose for yourself." Jim and Karen had a very large family. We shall miss them, but shall never allow them to pass from our memory...as friends and colleagues.

The author is Executive Vice President of the PLCAA.

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PRO SHOW COMES UP SHORT

Low attendance figures threaten the future of the industry's first national show featuring buyers from every section of the marketplace.

It was all Stephan Phelps could do to remain optimistic at the conclusion of the first Pro Show held at the Dallas Convention Center, Nov. 18-20.

"Obviously, attendance was not what we expected," said the show's director as he recited attendance figures of about 2,600.

The first-time show was attempting to capture what the Outdoor Power Equipment Institute's Expo show didn't — meeting the needs of commercial equipment buyers.

But promotion problems, coupled with incessant rainfall, caused the show to get off the ground on the wrong foot, and created speculation whether there would be a second Pro Show. Nevertheless, nearly 210 exhibitors filled the convention center for three days.

Attendance was low on the first day of the show, but picked up slightly the next two days. "It was the first show I've ever been involved in where attendance grows," Phelps said. "Unfortunately, it didn't grow to the level we needed."

The idea for the Pro Show stemmed from the success of the International Lawn, Garden & Power Equipment Expo held annually in Louisville, Ky. The Expo is targeted toward manufacturers who produce equipment for consumers.

Attendance was up by almost 200 on the second day of the show, Phelps said. Phelps and Andry Montgomery & Associates Inc. of Louisville, Ky., produced the Pro Show. It was promoted by Fleishman Communications Inc. of Palatine, Ill.

Phelps said the agency handling the advertising encountered delays which caused a direct-mail brochure on the show to be mailed six weeks late.

"We lost at least half of our audience by the delay. A lot of people needed that extra time to prepare," he said. "We were told things were proceeding, but they weren't. We could point fingers, but ultimately it's our responsibility."

In addition, some federal buyers scheduled to be at the show canceled because of a freeze President Reagan put on travel. A buyer from the Federal National Park Service and a government purchaser for General Service Agencies were among those scheduled to be at the show, Phelps said.

Problems really looked insurmountable when the outdoor demonstration area was completely washed out.

"When it started to rain it poured. The (outdoor demonstration area) wasn't conducive to demonstrating," Phelps said. "We developed an alternative site, but it was much further removed (than the first) — a five to seven



A Pro Show attendee gets helpful tips from a Wheel Horse exhibitor at the outdoor demo.

minute drive. It wasn't conducive to the best interests of the show."

The demonstration area, slated for the Trinity River basin, was equipped with a \$12,000 irrigation system several weeks before the show when Dallas' normally "perfect" weather didn't come through.

"When we needed it warm it was cold and when we needed it cold it was warm," he said. "We made a good decision (the irrigation system), but just not soon enough. Now the site has the most gorgeous green grass you could ever want."

Once the site was formally declared unfit, the team which took 16 months to put together the original demonstration area, put together an alternate site in one afternoon. But with surveying and the like complete, the show's staff determined it was too far away and went to option three: the parking lot outside the convention center.

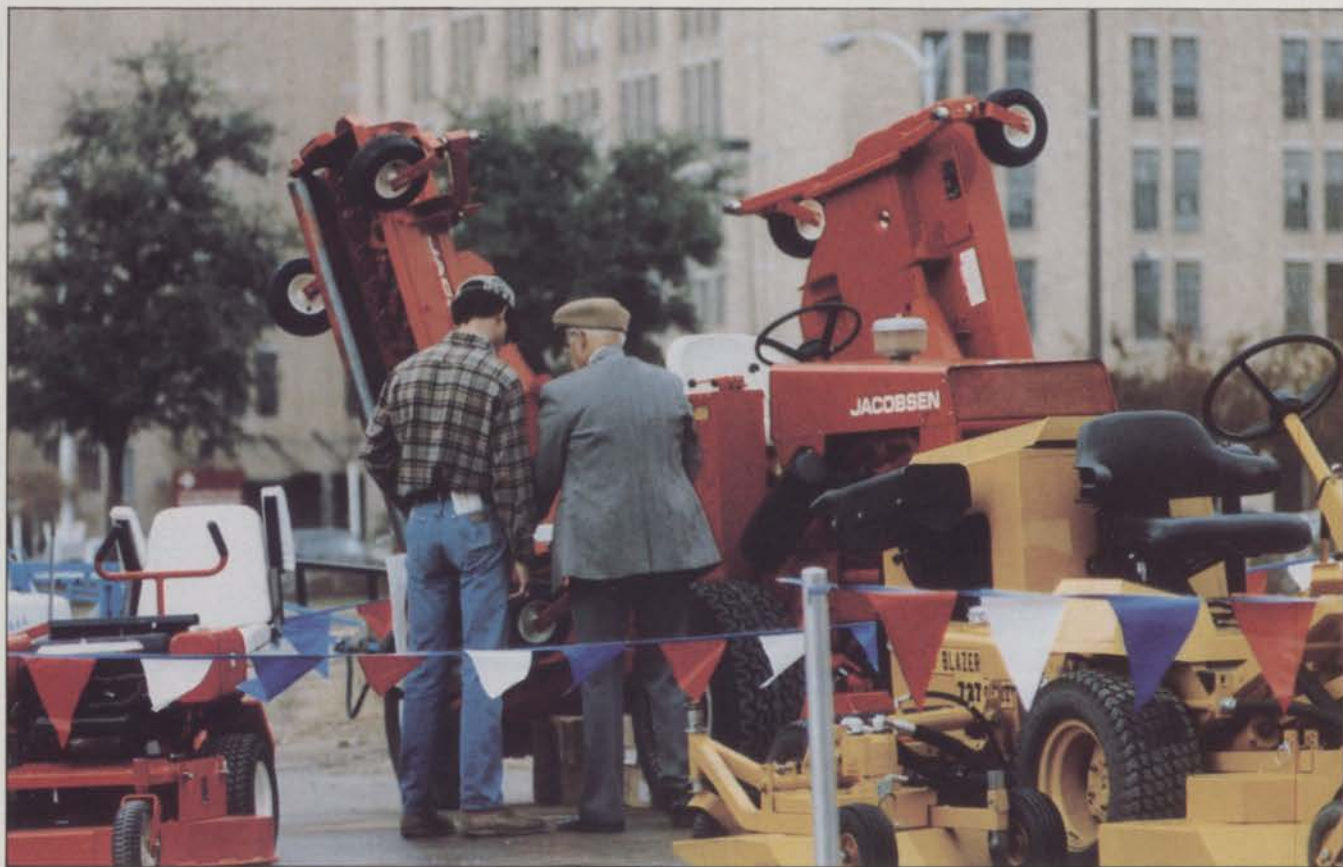
For obvious reasons, a good deal of the equipment couldn't be properly demonstrated on the asphalt parking lot, but others made do.

"It was extremely disappointing," Phelps told reporters gathered at a news conference on the first day of the show. "It (river basin) was a much better site than Louisville (home of the Expo). The Texas weather did everything it wasn't supposed to do."

Even after the third and final outdoor site was set up, Mother Nature still wouldn't cooperate. The outdoor demonstration was more often than not plagued by rain clouds.

Phelps called the educational seminars the "shine and glory" of the show.

"The seminars without a question were packed. Most



An alternative site for the outdoor equipment demonstration was reluctantly selected after the original location was washed out.

folks walked away with information and facts," he said.

The Pro Show boasted a diverse conference and seminar program offering 35 programs, plus three seminars held before the show's official opening.

One seminar, "Computer Applications in Landscaping," had to be canceled because of a lack of preregistrants. Phelps said 35 people needed to be registered for the seminar to be held. Only 25 people preregistered for the show.

Because of the cost involved, nearly \$12,000, the landscape program could not be held. Registrants had to pay \$100 for the program, but after its cancellation, most put their money toward other seminars rather than requesting a refund, Phelps said.

Instead of one cover price for the entire show, attendees were required to pay anywhere from \$25 to \$100 to cover the cost of each seminar. While the programs ran all day, the morning sessions weren't nearly as well attended as the afternoon sessions.

James Wilkinson, newly appointed director of the Pesticide Public Policy Foundation presented an early-morning seminar on posting and notification — a topic which is becoming increasingly important for everyone in the industry.

He explained that pesticides became an issue because of environmental activists on the state and federal levels, unanswered questions, increased media attention to pesticides and a general lack of understanding where pesticides are concerned.

As ordinances continue to appear at the local levels, LCOs and others will have to learn to testify on their own behalf.

Wilkinson has regularly appeared at such hearings across

the country.

In testifying, Wilkinson stressed that talking about the financial impact posting and notification will bring to companies will not work. On the other hand, compromises, alternatives and standardization may help.

In conclusion, Wilkinson told pesticide users to be aware of the issues coming their way — don't get caught off guard. Recycle and dispose of pesticide containers in the proper way. Finally, he told the audience to get to know their regulatory people in their state.

Other seminars included information on turf disease management, a wage-hour program, preventative maintenance for Tecumseh engines, soil cultivation, weed control, sports turf and athletic field problems and customer relations.

With a national audience, Phelps said, it's difficult to hold seminars which are directed toward a specific region of the country. Next year, if a show is held, show management will review the first-year seminar content and try to make it more regional.

In addition, a new scheme may be developed for the seminar pricing schedule. Phelps said the OPEI elected to charge the individual costs for the seminars rather than one overhead charge. Because the costs didn't cover the expenses, a new scheme may be devised if a future show is held. The semi-



A participant gets hands-on experience at the outdoor demo.

(continued on page 36)

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PRO SHOW

(continued from page 33)

Throughout the show, exhibitors remain optimistic that a few good leads would turn into sales.

"If we get one distributor it will be worth it," said a representative of Bunton Co. "But people aren't crowding in like they should be for the first day."

Elsewhere, the story was less optimistic.

"There's not a lot of traffic. We can't get away from the rain," said Eli Luster of John Deere.

"There's no traffic. Maybe I've seen six

people all day," said Scott Nielsen of Great Salt Lake Minerals and Chemical Corporation. "There's too many choices — Pro Show, PLCAA, Ohio (Turfgrass Conference). One will have to go. If I left tomorrow, no one would miss me."

Other associations participating in the Pro Show were the American Association of Nurserymen, Sports Turf Managers Association, Engine Service Association, Irrigation Association, Associated Landscape Contractors of America and National Landscape Assoc. — *Cindy Code* ■

The author is Editor of ALA magazine.

PRO SHOW FATE STILL UNKNOWN

The fate of the Outdoor Power Equipment Institute's Pro Show is up in the air following minimal success at its first Dallas show.

OPEI Executive Director Dennis Dix said the final decision of the board won't be announced until after the board meets Jan. 31 through Feb. 3, but indicated the show wouldn't be repeated in its same form next November.

"We'll look at it in terms of how we can get the equipment in front of the largest audience," he said. "We have a whole bunch of options, but in the foreseeable future, there will be no show in Dallas nor another show like Dallas in another location.

"There's still a lot of desire in the commercial field to try to have something, somewhere. We'll have to sit down and look where we are before we decide."

Dix said the basic theme of the show may be incorporated into another show — such as the Expo — but said no definite decisions have yet been made.

Because of the "super-fragmented" market, it wouldn't be economical or cost-effective to go back to Dallas year after year, Dix said.

"Those companies went all out. It's asking a lot to take their capital investment and do it again," he said.

Although Dix adamantly said the Dallas show would not be repeated, he also stressed that any decision announced before the board met would be premature.

Dix maintains the show was beautifully produced, surpassing the Expo — held annually in Louisville, Ky. — aesthetically. Although he was personally disappointed in the show's attendance, he said, he's heard other comments that it wasn't all bad.

Stephan Phelps of Andry Montgomery & Associates Inc. of Louisville, Ky., said his post-show follow-up indicates a number of exhibitors want to come back. He said manufacturers are committed to making the show work and that it will just take time for it to find its niche.

"They (OPEI) have to sit back and look at the big picture — successes versus failures. Can they overcome the failures?" Phelps asked. "We produce the show for the association. The association owns the show and if they decide not to do it, we won't do it."

Phelps said the Pro Show has a five-year contract with the Dallas Convention Center.

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December 17 Long Island, NY Area	January 27 Philadelphia, PA Area	February 22 Cleveland, OH	February 29 Murfreesboro, TN	March 4 Omaha, NE Area	March 11 Des Moines, IA	March 30 Concord, CA
January 6 Rochester, NY	January 29 Milford, CT	February 23 Erie, PA	March 1 Casper, WY	March 4 Billings, MT	March 18 Reno, NV	March 31 Sacramento, CA
January 8 Bloomington, MN	February 2 Albuquerque, NM	February 23 Lansing, MI	March 1 Owensboro, KY	March 7 Knoxville, TN	March 18 Toledo, OH	April 1 Fargo, ND
January 13 New Brunswick, NJ Area	February 3 Allentown, PA Area	February 24 Indianapolis, IN	March 1 Chickopee, MA	March 7 Springfield, OH	March 18 Sioux Falls, SD	April 14 Seattle, WA
January 13 Boise, ID	February 5 Denver, CO	February 24 Athens, GA	March 2 Rapid City, SD	March 7 Charleston, SC	March 22 Modesto, CA	April 19 Portland, OR
January 14 Idaho Falls, ID	February 5 Jamaica Plains, MA	February 25 Cincinnati, OH	March 3 Lexington, KY	March 8 Columbus, OH	March 23 Fresno, CA	April 28 Phoenix, AZ
January 15 Twin Falls, ID	February 9 Gaithersburg, MD	February 25 Las Vegas, NV	March 3 Savannah, GA	March 8 Spartanburg, SC	March 24 Ventura, CA	
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BUY/SELL AGREEMENTS

A buy/sell agreement is a way to provide a guaranteed market for a business interest at the death of an owner.

Establishing a successful business in itself requires more work than many can imagine. Until a person's gone through it — given the countless hours of time and effort to build a successful business — the full effort is not realized.

Even after starting a business — nursing it through its awkward growth stages and making a name for itself in the marketplace — there's still work to be done. Not just the day-to-day grind of keeping the business afloat, but the long-term dilemmas every company must endure.

For instance, what will become of the business should a partner decide to leave, or even worse, die. How much time and effort has been spent putting your business affairs in order?

Have you considered what might happen to your business if you were to die unexpectedly? Or, what if your partner or another shareholder were to die? Does your business plan include a buy/sell agreement that would ensure that the business could continue, and that surviving family members or heirs would receive full value in case of an untimely death?

Many serious problems can develop for heirs and surviving owners if advance preparations are not made. Generally, the only sensible solution to avoid the problems is to have your attorney prepare a written buy/sell agreement, and fund the agreement to make sure the business can continue and heirs are adequately provided for.

A buy/sell agreement is a way to provide a guaranteed market for a business interest at the death of an owner. Any business owner should consider setting up a buy/sell agreement if he or she falls under one or more of the following categories:

- There is more than one owner of the business.
- The business does not regularly pay dividends.
- The surviving family members cannot perform meaningful services in return for

a salary.

• You are the sole owner of a business, however, there is a key employee who could buy you out.

Business owners enter into buy/sell agreements because of the problems that exist on the death of an owner of a close corporation. (Similar problems and solutions apply to sole proprietors and partnerships.)

Known also as closed corporations and closely held corporations, they are usually owned by no more than a handful of people who each actively participate in the day-to-day management of the business. The close corporation's stock is not listed or traded on the stock exchanges, and seldom changes hands except at death, retirement or a major realignment within the corporation.

Although the circumstances that may necessitate a buy/sell agreement come in a

variety of shapes and sizes, such agreements generally come in two basic types: stock redemption agreements or cross purchase agreements.

A stock redemption agreement is made between the close corporation and each of the individual shareholders. Each shareholder agrees to sell his or her interest in the corporation at death. The corporation in turn agrees to buy the shareholder's interest.

The corporation owns insurance on each shareholder's life, pays the premiums and is the beneficiary of each policy. On the death of one shareholder, the corporation collects the insurance proceeds and uses them to purchase the deceased shareholder's stock. The remaining shareholders then are able to retain complete control of the corporation.

A cross purchase plan, on the other hand,

This Is How It Works

An attorney prepares an agreement between the corporation and owners A & B providing that on the death of either owner the corporation will pay cash for all of the deceased owner's business interest. Many agreements determine the price in advance and provide for periodic review.

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Must Buy

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Business Life Insurance creates the Tax-Free Cash to fund the agreement

Source: IDS Financial Services

is an agreement among the stockholders themselves. The corporation is not involved. Normally, each stockholder is the owner and beneficiary of a policy on each of the other stockholders. On the death of one shareholder, each of the remaining shareholders uses the insurance proceeds to purchase a proportionate share of the decedent's stock.

For example, suppose there were three shareholders — Anderson, Baxter and Collins — who each own one-third of a close corporation's stock. Anderson and Baxter each agree to purchase half of Collins' stock if he dies first. If Anderson dies first, Baxter and Collins would each purchase half of Anderson's one-third interest.

Life insurance was mentioned above as the funding vehicle for buy/sell agreements. There are actually two ways, in addition to insurance, that a buy/sell agreement can be funded for the purchase of a business at death. The other two are sinking funds and installment payments.

In a sinking fund, deposits can be made to a fund that would be used to purchase the shareholder's interest at death. This approach, however, has two drawbacks.

This Is How It Works

An attorney prepares an agreement between owners A & B providing that on the death of either owner, the surviving owner will pay cash for all of the deceased owners business interest. Many agreements determine the price in advance and provide for periodic review

Now . . .

Owner "A" Insures
Owner "B"

Owner "B" Insures
Owner "A"

When an Owner Dies . . .

The Surviving Owner
Must Buy

Cash
Stock

The Estate Must Sell

Business Life Insurance creates the Tax-Free Cash to fund the agreement

Source: IDS Financial Services

First, an owner's death may occur before a sufficient fund has been accumulated, and secondly, a substantial amount of money

would be tied up in the fund.

If such a reserve was funded with installment payments, a shareholder or the cor-

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poration could suddenly decide not to fund the agreement at all. Instead, the owner or shareholder could decide to pay for the business interest in installments to the estate or the surviving family, or obtain a loan from a bank. However, the owner would then be paying for the business interest with after-tax earnings.

The chart on the right shows the most expensive way to buy out an owner.

Life insurance guarantees that the cash needed to purchase the interest will be available automatically at exactly the time it is needed — tax free — regardless of the number of premiums paid. Each premium payment can be thought of as an advance installment payment of the purchase price.

Funding a buy/sell agreement may sound like a headache now, but can ultimately provide endless savings.

Major problems that develop at death and that can be solved by a buy/sell agreement include:

LACK OF INCOME. Most close corporations do not regularly pay dividends. During life, the shareholders generally receive substantial salaries. Salaries are deductible if they are reasonable in amount, however, dividends are not deductible. At the death of an owner-employee, the owner's salary generally cannot be continued to the decedent's family. The only way for the family

Year	Principal Payment	Assumed Interest At 12%	Total Annual Payment	Annual Cost After Interest Deduction	Earnings Required Before 28% Tax
1	5,000	6,000	11,000	9,320	12,900
2	5,000	5,400	10,400	8,888	12,300
3	5,000	4,800	9,800	8,456	11,700
4	5,000	4,200	9,200	8,024	11,100
5	5,000	3,600	8,600	7,592	10,500
6	5,000	3,000	8,000	7,160	9,900
7	5,000	2,400	7,400	6,728	9,300
8	5,000	1,800	6,800	6,296	8,700
9	5,000	1,200	6,200	5,864	8,100
10	5,000	600	5,600	5,432	7,500
	50,000	33,000	83,000	73,760	102,000

to draw money out of the corporation is with non-deductible dividends. Dividends are seldom paid by close corporations.

CONFLICT OF INTEREST. A deceased owner's family will want income from the business. But, the surviving owner will resist paying a nondeductible dividend to the deceased shareholder's family, since the

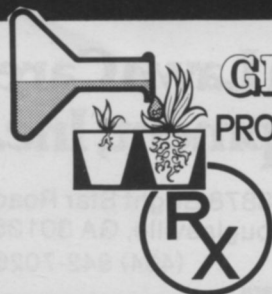
family is not contributing services to the business. Hence, there is an almost inevitable conflict of interest.

LACK OF MARKETABILITY. There is no established market for the closely held stock. There is probably no third party who would be willing to purchase an interest, particularly a minority interest, in a closely held

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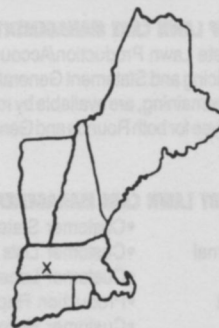
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business immediately after the death of an owner-employee. The most realistic purchaser is the surviving shareholder. However, the surviving shareholder will realize that the estate needs to sell and may not offer a fair price.

Furthermore, without advance planning, the survivor will have no money with which to purchase the interest and will have to finance the purchase from the business' after-tax profits.

LACK OF ESTATE LIQUIDITY. State and federal taxes may be payable on the fair market value of the deceased shareholder's interest in the business. The estate may not have sufficient liquid assets to pay these taxes.

The other side of the coin to consider is, what might happen if another shareholder-employee were to die? No one likes to plan for the unpleasant, but the following "what-if" circumstances can provide some insight should such an unplanned episode occur.

ARE YOU READY FOR NEW PARTNERS?

The other owner's heirs could become your partners, whether they have anything to contribute to the business or not. Or, they might want to sell their interest to someone that is not satisfactory to you.

WHERE DO YOU WANT PROFITS TO GO?

The heirs will want income, whereas you will want to plow profits back into the business.

WHERE WILL DIVIDENDS GO? Any divi-

result.

A buy/sell agreement could solve these problems. In a buy/sell agreement each shareholder, partner or an owner agrees to sell his or her interest at death for a stipulated price. The other shareholders, or the corporation itself, partner or key employee agree to buy the interest from the deceased shareholder's estate.

Buy/sell agreements can involve complex legal and tax questions so be sure to consult with your attorney, accountant and financial planner.

Your attorney can prepare an agreement that spells out the details of the plan. The agreement will set a purchase price for the owner's interests and should include a formula to determine the purchase price. The agreement should provide for at least an annual review and updating of the agreement. Many existing agreements have never been reviewed and updated. This can prove to be disastrous if there have been substantial changes in the value of an owner's interest. Consult with your financial planner on how to best fund the agreement.

You will then have your business will in order. — *Lawrence Wilhelmi*

The author is a personal financial planner with IDS Financial Services Inc. in Livonia, Mich.

In a buy/sell agreement, each shareholder, partner or an owner agrees to sell his or her interest at death for a stipulated price. The other shareholders agree to buy the interest from the deceased shareholder's estate.

VALUATION DIFFICULTIES. The IRS may attempt to put an unrealistically high value on the business for purposes of federal estate tax. This could lead to delay, court costs and unnecessary estate taxes.

dends the business pays to heirs will not be deductible.


WHAT IF OPINIONS DIFFER? If you try to freeze the heirs out of corporate dividends, a dispute or possibly even legal action could

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BLUEGRASS PATCH DISEASES: THE ETIOLOGIC DILEMMA

The intensity of Fusarium blight research activity is increasing to determine the merits of recent reports and hypotheses.

The demand for high-quality lawns, sports fields and commercial landscapes increased rapidly in North America during the late 1940s. Newly released cultivars of Kentucky bluegrass with improved resistance to foliar diseases became widely accepted. They were planted mostly as monocultures to achieve maximum benefit from their quality and uniformity. These new cultivars were accompanied by an increase in the intensity of turfgrass management practices. More equipment, automatic irrigation systems, pesticides and high-analysis fertilizers were introduced into turfgrass maintenance programs. New diseases began to occur on the new, intensively managed grasses, and diseases on residential and commercial landscapes became as important as those on golf courses. Turfgrass pathology became accepted as an important and challenging specialty for research and extension and continues to grow in response to demands from our increasingly urban population. This paper illustrates just one of the concepts evolving within the subdiscipline of turfgrass pathology in the United States.

OVERVIEW OF FUSARIUM BLIGHT. A disease causing circular to serpentine necrotic patterns in turf was the first serious new problem to receive widespread attention on the "improved" Kentucky bluegrasses. The disease was first recognized during the 1950s. The unifying feature for the disease was the ubiquitous presence of *Fusarium* spp. in and on affected tissues of symptomatic grasses. The disease was named Fusarium blight (3). The concept of Fusarium blight gained rapid and thorough acceptance in the turfgrass trade even though several details leading to this conclusion were not

in concert with symptom development in the field.

From 1966 to 1975, studies that led to development of moderately effective control strategies and practices made it increasingly doubtful that *Fusarium* spp. were the primary agents for many of the patches diagnosed as Fusarium blight. In all cases, however, the evidence supporting this doubt was entirely circumstantial. Little or no firm evidence was presented to demonstrate that the disease was caused by a primary agent other than *Fusarium*, and the possible involvement or even the identities of other suggested primary agents were speculative.

This etiologic dilemma caused increasing disunity among pathologists, who faced increasing pressures from an industry whose technological base was advancing rapidly but whose disease control practices lacked reliability. Pressures were exerted from several directions.

Manufacturers of fungicides were puzzled by the success of new compounds in controlling some but not all outbreaks of Fusarium blight, plant breeders were searching for improved inoculation techniques with *Fusarium* spp. to expedite screenings for disease resistance, golf course superintendents were purchasing microscopes to aid in rapid diagnosis of disease, and lawn maintenance supervisors were given and were giving conflicting recommendations regarding water management strategies in different regions where the disease occurred. A new faculty position at Cornell University was established as a direct response to industry concerns over the inability to understand and control Fusarium blight.

During the early 1980s, the issue of patch disease etiology on bluegrass turfs erupted into a lively controversy. Those

who doubted the accuracy of the Fusarium blight concept were faced with two choices: either abandon this line of research or present conclusive evidence to support an alternate hypothesis for the biology of this disease.

More intensive examination soon led to the discovery that several newly recognized soilborne pathogens were associated with presymptomatic stages of patch development. Evidence indicated that the new fungi were primary agents for at least two



Leaf symptoms (left) and diffuse distribution of Fusarium leaf blight.



This group of photos from Dr. Richard W. Smiley's collection shows necrotic ring spot in turf (above right) and growth chamber (top left), and pseudothecia of *Leptosphaeria* on decomposing bluegrass root (middle left) and crown.

different diseases that had been grouped together on the basis of similar patch symptomatology and the nearly ubiquitous presence of *Fusarium* spp. A stronger case was presented that *Fusarium* spp. associated with patch diseases in the eastern and north central United States act as secondary colonists whose importance to the full expression of the disease remains unknown.

As we enter the third decade of "Fusarium blight," research activity is intense to determine the merits of recent reports and hypotheses. The evolution of major thoughts on the etiology of Fusarium blight is presented here.

A CONCEPT IS BORN. Severe necrotic patches began to occur on Kentucky bluegrass turfs during the 1950s (1,2). The disease gained national prominence in 1964 when it devastated an acre of the south lawn at the White House and much of the Capitol Mall in Washington, D.C. Intense pressure was exerted on pathologists to name and fully describe the disease and to develop control strategies. From isolations collected from fully symptomatic plants in several Mid-Atlantic states and using classical foliar epidemiologic methods, Couch and Bedford (3) concluded that the incitants were *Fusarium roseum* f. sp. *culmorum* and *F. tricinctum* f. sp. *poae*. These fungi occurred in high frequency on leaves, crowns and roots of affected plants and were pathogenic to leaves of inoculated

seedlings incubated for three to seven days in a dew chamber. Couch and Bedford (3) coined the name Fusarium blight, and their report served as the only etiologic basis for control-oriented studies during the next 15 years.

THE CONCEPT IS QUESTIONED. In the late 1970s, several scientists entered a period of open disagreement on the etiology of Fusarium blight as it related to a disease expressed by concisely shaped patches. The concept of Fusarium crown and root rots and of foliar blights caused by *Fusarium* spp. was not questioned. These diseases are diffusely distributed across a turf or they intensify into irregularly shaped patches, but they do not fit the precisely patterned disease described as Fusarium blight. Several scientists working in the area where the concept for this disease was born began disregarding the obvious presence of *Fusarium* spp. associated with the final stages of Fusarium blight and challenged the original concept (7,8). Arguments were based on 1) a preponderance of circumstantial evidence suggesting that *Fusarium* spp. were not the primary agents and 2) the absence of confirming evidence to support the concept that these fungi could cause a precisely patterned patch disease. Unfortunately, neither of the challenges, offered a research-based alternate explanation for the etiology of this serious disease. Avenues for new research directions were suggested (8), and new studies were initiated in many states. A second new faculty position, at the University of Illinois, was established in direct response to the continual industry concern over this disease.

Since 1980, a lively controversy has developed over the concept of Fusarium blight. The issues came to be tried before popular audiences rather than within the plant pathology profession. The etiologic uncertainty was highlighted when I changed the disease name from "Fusarium blight" to "Fusarium blight syndrome" (9), which quickly polarized proponents and opponents of the Fusarium blight concept.

The debate over Fusarium blight has stimulated much new interest in the ecology of soilborne pathogens in the turfgrass ecosystem. The evolution of concepts regarding this patch disease is still far from complete.

REFINEMENT OF CAUSATION. Progress toward unveiling a better understanding of the patch disease syndrome was made simultaneously in several states during the early 1980s. Notable contributions came from California, Illinois, Michigan, New York, Pennsylvania, Rhode Island, Washington and Wisconsin. Although much of this work remains to be published, introductions to important findings and concepts are available (4,5,6,7,11,19). The concepts and methodologies presented in the following summary emphasize those in my studies.

The etiologic dilemma of Fusarium blight was based on the methods used to coin the concept. Unfortunately, the "proof of pathogenicity" used for *Fusarium* spp. on grasses (3) can be achieved with isolates from roots and crowns of plants in nearly all turfgrass stands. Events early in the development of patch diseases, before foliar symptom expression, had not been investigated because symptoms often disappear between epiphytotic episodes. The patch symptoms are typically expressed during mid to late summer, and affected plants then recover, or regrowth from adjacent plants fills the patch during the autumn, winter and spring. Patches often become visually indistinguishable from healthy turf by midwinter. A method was developed to collect samples before symptoms became visible in the foliage. Permanent markers (metal plates with an anchor spike) were installed in numerous patches throughout New York and Connecticut during 1980. A tape measure and compass were laid over the marked patches and they were photographed. The location of each marker was then triangulated to permanent structures, and the patches or their previous locations were observed and photographed annually. Samples were taken from precise positions through the patches and adjoining grass up to five months before visual symptoms developed.

We found that roots, crowns and rhizomes of tillers at the edges of patches supported growth of dark-colored fungal mycelia similar to that of *Gaeumannomyces* spp. (11). These fungi were difficult to isolate directly because fungi with more rapid growth rates, such as *Fusarium* spp., typically overran the isolation medium. Indirect techniques that selected for pathogenicity were then adopted to isolate primary root-infecting fungi. Cores of turf from the patch perimeters were buried in coarse sand in greenhouse pots, and wheat, oats or turfgrass species were grown as trap crops. The pathogenic fungi producing the dark mycelia could then be isolated directly and consistently from young, relatively "clean" roots of the trap crops. Direct isolations of these

fungi from patch-affected turfs became even more reliable and repeatable with a new semiselective medium for *G. graminis*.

Inocula prepared from pure cultures of the fungi were placed into apparently healthy turfs at several locations in New York. Koch's postulates were fulfilled for fungi identified as *Leptosphaeria korrae* and *Phialophora graminicola*. Characteristic patch disease symptoms occurred at the loci where these soilborne fungi were placed in the field plots (11,13,14). Symptoms were expressed either in the year of inoculation or one or two years later, and patches reappeared at the same inoculum loci for one, two, three or more years. At some locations, only one of the fungi was effective in causing patches, but the fungus that was virulent at one location was not always the same as that causing patches in another inoculated plot. Both pathogens caused patches in some field tests. Effects of environmental conditions on growth of these fungi (15), a method for demonstrating their patch-producing capability in the greenhouse (17), and methods for identifying the diseases and pathogens (18) were reported. Inoculation procedures were then refined for investigating the efficiency of inocula placed into field management studies (14), for variety trials (13), and for screening, under controlled environments, the entries of turfgrass species, cultivars and lines in the National Turfgrass Evaluation Program (12).

TWO NEW DISEASES. Patches caused by *L. korrae* in Kentucky bluegrasses and other cool-season (C3 pathway) grasses have been named necrotic ring spot (19). This pathogen is also the incitant of spring dead spot of bermudagrass in California (4). Unpublished reports indicated that this or a closely related *Leptosphaeria* spp. has also been associated with spring dead spot in the central United States. Refined experimental and diagnostic techniques and the concentrated effort now directed toward the patch diseases open the possibility for identifying additional patch-inducing pathogens in grasses.

Summer patch is the name for disease caused by *Phialophora* spp. (10). Although taxonomic and ecological characteristics led to the identification of this high-temperature pathogen as *P. graminicola* (11,15), further changes in pathogen identity are imminent. *G. cylindrosporus* is recognized as the teleomorph of *P. graminicola*, and Jackson and Landschoot (5) were the first to isolate *G. cylindrosporus* directly from plants grown in the field. Recent evidence indicates that the anamorph derived from *G. cylindrosporus* is not identical to many of the isolates used in my field and greenhouse studies (*P. Landschoot, personal communication, November 1986*). Our original report of these fungi (11) indicated a range in the capacities of isolates to infect wheat and oats in the trap-crop isolation procedure, and our subsequent research publications are based

on tests with the most aggressive of the isolates taken from patch-affected grasses. The teleomorphs for most of the isolates used in my studies have now been produced by Landschoot, and the proven incitants of summer patch, i.e., the most aggressive isolates from a collection of *Phialophora* spp. with uniform appearance, have been identified and the *Phialophora* stage of what appears to be an undescribed species of *Magnaporthe* (6). The name of the agent of summer patch will, therefore, be re-described by Landschoot and Jackson.

At least one additional fungus with an ectotrophic growth habit similar to the previously mentioned organisms is suspected of involvement in this patch complex on Kentucky bluegrasses. This potential agent is difficult to study in turfgrass cultures because it is very tolerant of heat and grows very slowly. Comparative pathogenicity tests in the greenhouse and growth chamber illustrated that the fungus was less pathogenic than the *Phialophora* and *Leptosphaeria* isolates studied at high temperatures and did not cause disease at low to intermediate temperatures.

FUTURE DIRECTIONS FOR RESEARCH. The etiologic dilemma concerning Fusarium blight continues. Patches conforming to the generic description for this group of diseases have been separated into at least two new diseases caused by species of *Leptosphaeria* and *Phialophora*. It is clear that studies of "Fusarium blight" prior to about 1982 were conducted on patches of uncertain etiology, and most of that research must now be repeated.

Additional research is needed to determine the manner in which these pathogens and diseases are influenced by the environment. Necrotic ring spot and summer patch can both appear on Kentucky bluegrasses during the summer, but necrotic ring spot can also appear during the spring and autumn (15). Reasons for the appearance of a patch at any particular time remain poorly defined. Irrigation and fertilization practices affect each disease (13), but predictive guidelines and precise control recommendations are needed. The influence of herbicides is poorly understood, but it is clear that those that cause physiological stress to Kentucky bluegrass can enhance the incidence and severity of patches (16).

Emphasis on development of grass cultivars and species with enhanced resistance to each and on combinations of the primary agents must be continued. Published evidence that cultivar X isolate interactions are highly variable (12) illustrates the need to use many isolates in breeding and screening studies. Studies of three-way interactions of cultivars, agents and environmental variables are badly needed in view of the regional responses of cultivars to these patch diseases (7,8).

— Richard W. Smiley ■

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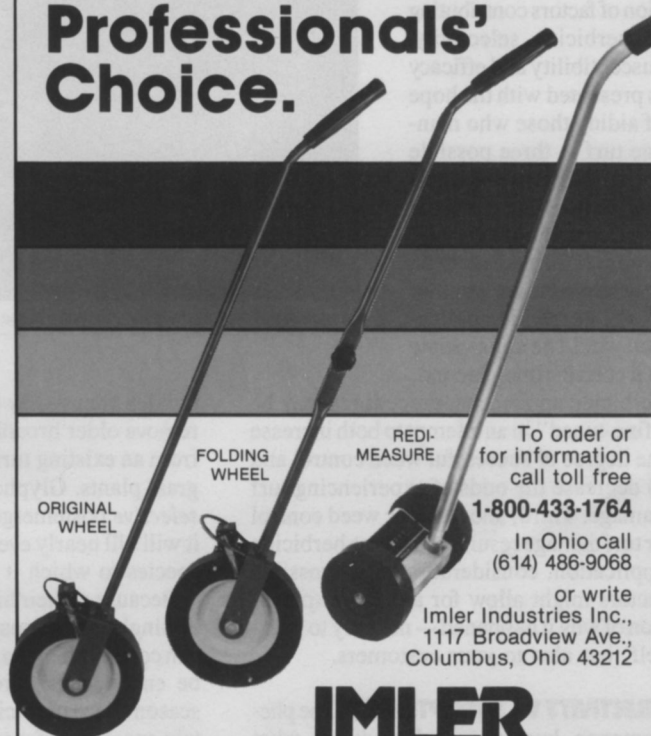
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FACTORS INFLUENCING THE EFFECTIVENESS OF HERBICIDES

Attaining a high degree of efficacy from herbicide applications often involves more than the selection or application of an herbicide which is labeled for control of the weed in question.

A recent nationwide survey of lawn care applicators (1) revealed that incomplete weed control was the second most common reason (24.8 percent of customer losses) given by customers for discontinuation of services (moving was first). This might seem surprising at first, especially when one considers the variety of herbicides and formulations available to turf managers today.

As this article will demonstrate, however, attaining a high degree of efficacy from herbicide applications often involves more than the mere selection of application of an herbicide which is labeled for control of the weed(s) in question.

The following discussion of factors contributing to herbicide selectivity, susceptibility and efficacy is presented with the hope of aiding those who manage turf in three possible ways. First, by considering the possible effects of these contributing factors, a more informed decision may be made as to whether or not herbicide application would be appropriate at a certain time. Second, herbicide application procedures may be "fine-tuned" in an attempt to both increase the degree of successful weed control and to decrease the odds of experiencing turf damage. Third, should poor weed control or turf damage result following a herbicide application, consideration of all possible factors might allow for a better explanation of why it happened — not only to yourself, but also to your customers.

SELECTIVITY VS. SUSCEPTIBILITY. The phenomenon known as *selectivity* is what allows an herbicide to kill weeds and yet not harm the existing grass. Selectivity

refers to the ability of an herbicide to kill a specific spectrum of weeds when applied under ideal conditions and at recommended rates. Preemergence chemicals are selective herbicides because they kill only germinating weed seeds and not mature turfgrass plants. Siduron is an especially selective preemergence herbicide that kills the undesirable warm-season grass seedlings (such as crabgrass) in new seedlings, but not the desirable cool-season turfgrass seedlings. Selective postemergence her-

icides are used by turfgrass managers to remove older broadleaf and grassy weeds from an existing turf without harming the grass plants. Glyphosate is termed a *non-selective* postemergent herbicide because it will kill nearly every weed and turfgrass species to which it is applied.

Because of their highly selective nature, no single pre- or postemergence herbicide can control all of the weed species that will be encountered throughout the growing season. Each herbicide controls only a certain spectrum of weeds. Therefore, to ensure a maximum likelihood of success when using herbicides, the target weeds must be

correctly identified so that the proper herbicide can be chosen for application. If a suitable herbicide is applied according to label directions by a well-trained applicator, the odds of obtaining satisfactory control of the targeted weed(s) are generally high. Despite the best of efforts, however, the application of the appropriate herbicide may not always result in satisfactory control. When a professionally applied herbicide fails to kill a weed known to be controllable, the failure is often due to a change in the weed's *susceptibility*. Susceptibility can be defined as the degree to which an herbicide affects a plant following application. By way of example, an application of 2,4-D to a lawn infested with dandelions might result in rapid kill of most of the dandelions. A number of the remaining dandelions may die more slowly, while a few may exhibit only a slight response to the herbicide and not die at all.

Assuming that the herbicide was applied uniformly, the apparent variations in sensitivity to 2,4-D displayed by the individual dandelions in this population could be attributed to differences in susceptibility. A number of environmentally- or plant-related factors can singly, or in combination, affect the susceptibility of both easily and difficultly controlled (such as wild violet) weed species to herbicides. Some other factors which can affect susceptibility include: physical/chemical formulations of the herbicide, tank-mixing with other pesticides, use of surface-active agents and quality of the water used for liquid applications.

It must be emphasized that the susceptibility of the non-target vegetation (in this case, turfgrass) to damage by herbicides



A number of factors combine to make some weeds, such as wild violet, difficult to control.

may also be altered by the same factors which alter a weed plant's susceptibility. The herbicides used for control of turf weeds are said to be selective simply because, under most conditions, the turfgrass species which they are labeled for use are not susceptible to damage by those chemicals when applied at recommended rates. Nevertheless, any combination of factors which increases the susceptibility of the desirable turfgrass species to an herbicide will increase the chance of a phytotoxic response (burning, discoloration) or even death of the turf following application.

ENVIRONMENTAL FACTORS. One way in which environmental factors can alter a plant's susceptibility to an herbicide is by their effect on the herbicide itself. For example, high temperatures may increase the rate at which certain herbicide formulations volatilize, thus reducing both the dosage level and the duration of exposure to the chemical. The degradation rate of soil-applied herbicides (such as preemergence materials) may also be enhanced as temperatures increase, especially under conditions of high soil moisture.

Finally, high temperatures in combination with low relative humidity will accelerate the rate at which spray droplets dry on leaf surfaces. While this may seem to be desirable, it may actually result in decreased uptake of water-soluble herbicide formulations (salts, true solutions) because the herbicide crystallizes on the leaf surface as it dries. These formulations will be more efficacious when applied under conditions (cool temperatures, high relative humidity) which allow the herbicide to remain dissolved in a spray droplet for as long a period as possible.

Those who apply herbicides on a regular basis generally consider the potential effects of rainfall and wind on herbicide activity. The occurrence of rain soon after either granular or liquid applications of foliar-applied products will decrease the amount of herbicide absorbed by the weed plants, thus reducing efficacy. Windy conditions may also reduce the amount of herbicide deposited on the target weeds, as well as increasing the possibility of damage to non-target ornamental plants. Conversely, lack of precipitation or irrigation following application of granular preemergence herbicides will delay the release of the herbicide from the granule carrier. Sprayable formulations of some preemergence herbicides may be subject to photodecomposition and/or volatilization losses if precipitation does not wash the chemical off of the turfgrass leaves after application. If germination and seedling growth of weeds precedes uniform deposition of the preem-



Slowly growing, drought stressed weeds (left) will absorb less herbicide than actively growing, turgid weeds (right).

ergence herbicide (from either granular or sprayable formulation) on the soil surface, poor weed control will generally be experienced.

PLANT-RELATED FACTORS. Perhaps more important than the direct effects of the environment on herbicidal activity are those indirect, environmentally induced effects on the plant itself which may alter its susceptibility to herbicides. Specific temperatures influencing susceptibility will vary with plant species. For example, winter annuals (mustards, chickweed, henbit) may respond to herbicides applied when air temperatures are in the 40-50 F range, while some perennials may not respond until temperatures are in the 60's. These differences may be related to how temperature affects the plant's growth or respiration rates, or to how it absorbs and metabolizes herbicides.

The effects of environment on leaf cuti-

they are seedlings and will be less effective once the plants flower and begin forming seeds. In general, perennial plants are most susceptible to applied herbicides during the spring (March-June) and fall (September-November) and least susceptible during the winter and mid-summer months. Members of the Composite weed family, including dandelion, Canada thistle, chicory and sow-thistle, are least susceptible to herbicide kill when they are flowering.

The degree of waxiness or pubescence (hairiness) of the leaf surface and the orientation of the leaves with respect to the spray will also affect the degree of weed control. Sprays deposited on waxy leaves (such as those of wild garlic or purslane) may bead up or roll off, reducing the amount of herbicide available for uptake. The waxes themselves will function as a barrier to uptake. Spray droplets deposited on highly pubescent leaves (such as those of mouse-

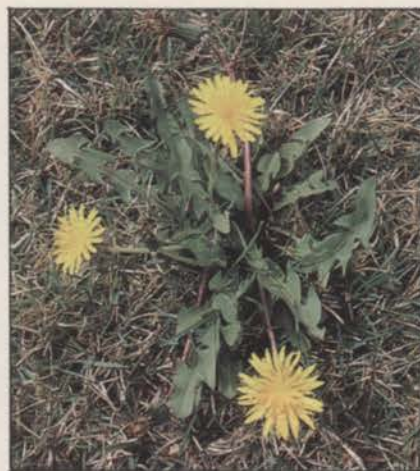
Plant age will also influence the degree of susceptibility to chemical controls. Preemergence herbicides are only effective on germinating seeds and very young seedlings.

cle development can have a major impact on a plant's susceptibility to applied herbicides. Water-stressed plants are less susceptible to foliar-applied herbicides because they form a thicker, less permeable cuticle. Plant leaves which form during periods of high temperatures and/or low relative humidity will also form a thicker cuticle. Conversely, both weeds and turfgrasses growing in shaded areas will be more susceptible to foliar-applied herbicides because low-light conditions cause the plant leaves to form a thinner, more permeable cuticle.

Plant age will also influence the degree of susceptibility to chemical controls. Preemergence herbicides are only effective on germinating seeds and very young seedlings. Foliar-applied herbicides will control annual plants most effectively when

ear chickweed, corn speedwell or hairy crabgrass) will be less likely to contact the plant surface, therefore reducing the amount of herbicide absorbed into the plant and making these species more difficult to control. Vertically-oriented leaves, such as those of difficult-to-control wild garlic, will retain less spray than those which are oriented in a horizontal fashion (dandelion, plantains). The leaflets of another difficult weed, yellow woodsorrel or oxalis, will often be folded together under conditions of drought. This behavior effectively reduces the leaf surface area available for spray deposition.

OTHER FACTORS. Numerous other factors can contribute to the degree of weed control achieved with herbicide applications. The physical formulation of the herbicide



Dandelions are prone to herbicide kill before budding.



Drought-stressed oxalis is a difficult to control weed.

can sometimes determine the degree of susceptibility for certain weeds. For example, some speedwell species can be controlled with a postemergence application of DCPA (Dacthal®) if the wettable powder or liquid flowable formulations are used, while the granular formulation is ineffective.

Granular postemergent herbicides are often said to be less effective at killing weeds

than their counterpart liquid formulations. While this may be true to a point, the decreased efficacy sometimes experienced with the granular formulations more often than not can be attributed to improper application procedure and not so much to the formulation itself. Granular materials must be applied when foliage is wet from rain, irrigation or dew so as to allow for maximum adherence of granules to leaf sur-

this has important implications regarding damage to non-target ornamental vegetation, it should be understood that any degree of volatilization of an applied herbicide effectively reduces the dosage received by the weed. Under conditions which promote volatilization, reduced efficacy of ester-formulated herbicides or other volatile herbicides/herbicide formulations might be experienced.

Sometimes the loss of herbicide effectiveness results from improper preparation of the spray mixture itself. Tank-mixing of herbicides with fertilizers or other pesticides is a time-saving procedure utilized increasingly by turfgrass managers. All tank mixes should be tested before wide-scale use.

faces. Generally speaking, granular and liquid formulations of the same herbicide can provide comparable weed control if they are applied correctly.

Chemical formulations of the same herbicide can also differ in their degree of herbicidal activity. For example, wild garlic is more easily controlled with ester formulations of 2,4-D than with the amine salt formulations. Under conditions which promote rapid drying of spray droplets, plant uptake of lipid-soluble formulations (i.e., non-water-soluble forms such as the esters) will generally be unaffected while uptake of water-soluble forms (salts) can be significantly reduced as they crystallize on the leaf surface. It should be noted, however, that conditions which promote drying of spray droplets may also promote volatilization of esters. Work conducted at Michigan State University by Branham and Hanson indicates that ester volatilization may be excessive under certain conditions. While

The evaporation rate of spray droplets can be slowed through the addition of surface-active agents (wetting agents, spreader-stickers, anti-evaporants) to the spray mixture. This not only allows a water-soluble herbicide to remain in a liquid state for a longer time, but may increase herbicide efficacy in two other ways. One is by allowing the spray droplets to spread over a large surface area, thus increasing the possibility of uptake. Secondly, some surface-active agents may actually increase the permeability of the leaf cuticle, thereby allowing for easier herbicide penetration. It is important that surface-active agents be tested on a small scale initially, because some types may increase the risk of causing discoloration or burning of the desirable turf.

Sometimes the loss of herbicide effectiveness results from improper preparation of the spray mixture itself. Tank-mixing of herbicides with fertilizers or other pesticides is a time-saving procedure utilized increasingly by turfgrass managers. All tank mixes should be tested before wide-scale use, for two reasons. One is to check for physical incompatibility (using a jar test). If the chemicals form a sediment or sludge in such a test, the mixture will not be sprayable and control will likely be poor. Even if the jar test shows the mixture to be physically compatible, the new combination should be tested on a small-scale basis in the field for possible negative effects with regard to weed control or phytotoxic responses from the turf arising from chemical incompatibility.

Two important types of interactions can occur when chemicals are mixed in a spray tank. If the effectiveness of the chemicals in combination is greater than that when they are applied separately, the interaction is called synergism. The synergistic effect obtained by combining the herbicides 2,4-D, dicamba and MCPP broadens the spectrum of controllable weeds and inten-



"Purpling" of dying crabgrass sprayed with Acclaim® (left), compared to the combination of Acclaim + 2,4-D.

sifies the weed-killing ability of the mixture over that of a spray containing only one of these herbicides. When the combining of chemicals reduces or totally negates the effectiveness of at least one of the chemicals, the interaction is called antagonism. An example of this type of interaction involves the newly available postemergence control for annual grasses, Acclaim®. This

This chemical is rapidly and irreversibly adsorbed onto clay and organic matter particles present in unclean water, thus reducing its ability to kill vegetation. While other turf herbicides are probably affected to a lesser degree by low-quality water, the chances of reduced efficacy will be lowered by making every effort to use clean water for spraying.

fully investigate and understand those uncommon instances where poor weed control or turf damage results from an herbicide application. — Dr. Anthony J. Koski

The author is an extension specialist (turf-grass) in the Department of Agronomy at The Ohio State University, Columbus, Ohio.

LITERATURE CITED

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The quality of water used for preparing the spray mixture is also important. The use of poor quality water, at best, will never enhance the effectiveness of any pesticide. At worst, it can decrease the efficiency of some herbicides.

material loses its efficacy when it is tank-mixed with 2,4-D or other phenoxy herbicides.

The quality of water used for preparing the spray mixture is also important. The use of poor quality water, at best, will never enhance the effectiveness of any pesticide. At worst, it can decrease the efficacy of some herbicides. Glyphosate, used extensively in turf renovation projects, is a prime example of an herbicide which loses its effectiveness when applied using "dirty" water.

SUMMARY. Numerous factors can affect the susceptibility of weeds and turfgrass plants to herbicides. Ultimately, these variations may be reflected in the degree of weed control attained or, in some cases, by the amount of phytotoxicity exhibited by the turf. This brief discussion of factors influencing herbicide activity has been offered with the hope that turfgrass managers will consider them as ways of gaining greater efficacy and safety when planning herbicide applications. It may also allow one to more

COMING NEXT MONTH

Next month's issue of *ALA* will feature our yearly special chemical products section timed to meet the LCO's buying needs. We will also discuss last year's crabgrass problem and review safety inspection techniques. Be sure and watch for our regular departments. Stay tuned.

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ALA / JANUARY 1988 51

PRODUCTS

New from **Warp Bros.**, Chicago, Ill., are two synthetic products that are designed to inhibit weed growth and encourage desired vegetation to flourish.

According to the company, its No-Hoe double thick plastic garden mulch is long-lasting and provides the extra strength required under stone chips, decorative rocks and heavy vegetables.

Black plastic mulch is preferred by many gardeners, says Warp Bros., because of its economy and opaque nature which blocks out light to eliminate weed growth. Slits cut around plants or over seeds or seedlings allow desired plantings to flourish. Water flows directly to the plants on the surface of the plastic as well.



Ease of installation is a feature in another of Warp's new products — No-Hoe Landscape Fabric. The cloth-like material cuts easily with scissors, and forms smoothly to follow the contours of the ground.

Landscape Fabric is used under gravel, bark or stone chips to keep weeds down and keep dirt from infiltrating the decorative material. It also keeps weeds from coming up between patio stones and bricks. According to the company, the Landscape Fabric allows water and nutrients to flow through to the soil and lets the soil breathe. **Circle 100 on reader service card**

The triplex greensmower from **Bunton Co.** is now available with a cool-running 18 horsepower, twin-cylinder, aluminum block (with cast iron sleeves) Onan engine or an optional 16.5 horsepower three-cylinder water-cooled Kubota diesel engine.

The mower's reels are independently operated making it possible to raise the individual cutting units completely off the ground. This feature helps prevent turf



damage that occurs from dragging during multiple mowing patterns. All reels, carriage frames, catchers and reel motors are interchangeable. Bedknife to reel adjustment is simple. Frequency of cut is .23-inch at 3.5 mph.

The drive is a true hydrostatic closed circuit which requires fewer valve banks and hydraulic pumps than other systems for lower maintenance.

Other features include an aluminum hydraulic oil reservoir for improved heat dissipation mounted in front for optimal weight distribution and improved climbing capability, anti-vibration engine mounts and a wide, low profile wheel base for a low center of gravity.

Circle 101 on reader service card

A new self-propelled walk-behind **Ryan®** aerator called the Lawnaire® 28 has reciprocating, crank-shaft mounted tine arms and features a vertical coring action similar to larger Ryan aerators. The result is a cleaner, more professional-looking aeration job.

Lawnaire 28 covers an aerating swath of 28 inches and can cover up to 24,000 sq. ft. per hour. Coring depth is 2½ inches, with 3/4-inch diameter tines and a core pattern of 3½ x 5 inches. The unit is only 34 inches wide overall, so the operator can easily get through standard yard gates.

Designed for easy maneuverability, durability and low maintenance, the Lawnaire 28 features a tricycle front wheel and a ground-drive dog clutch that the operator can disengage to make the rear drive wheels free-wheeling. Because of the patented Ryan tine linkage, the unit has a zero turning radius while aerating. However, if the operator has to aerate into a corner, he can pull the dog clutch lever and back the unit out easily.

The new aerator also features an over-center lever-operated master clutch that engages the drive wheels and reciprocating tines simultaneously. When the lever is released, both the tine arms and drive wheels stop. The rubber-isolated handlebars minimize vibration for the operator, and a spring-assisted lift makes it easy to raise the aerating unit when moving to another spot.

Powered by a 7 horsepower overhead valve industrial engine, the Lawnaire 28 has a centrifugal precleaner for added engine protection. Gas tank capacity is 1.1 gallons. Reliability is enhanced with sealed, precision ball bearings at all locations on the tine arms and linkage.

Circle 102 on reader service card

Air Lift Company's Polyair Spring is the cure for front-end sag on Broncos, Blazers, Cherokees and other light duty pickups. The proven suspension aid fits inside the front coil spring as an add-on accessory or adapts with supplied hardware to leaf springs equipped on GMC and Chevrolet front suspensions.

Unlike heavy-duty replacement springs which have a fixed, non-adjustable spring rate, Polyair Springs can be easily adjusted simply by changing air pressure to increase spring stiffness. The pressure can be matched to the exact weight load, tailored to the motorist's ride preference to improve handling and steering control.



The Polyair Spring is an excellent suspension accessory, especially for trucks which carry front-end equipment such as winches, push bars, snowplows, etc. They are also an inexpensive way to revitalize tired, sagging front springs. Complete do-it-yourself kits are available for several light truck models including rear applications. All carry a lifetime limited warranty.

Circle 103 on reader service card

Walton Manufacturing introduces the Little Goose trailer. This gooseneck style utility trailer is sized for the popular Class I

pickups (Chevy S10, Toyota, Ford Ranger, etc.). Similar models are available for full-size pickups.

Owners will welcome the capacity and performance of Little Goose trailers. The gooseneck configuration transfers weight to both axles of the pickup, providing superior stability and towing properties. The gooseneck hitch is also unbeaten in maneuverability, according to Walton. Its 180 degree hitch pivoting range greatly simplifies trailer positioning.

Standard features include corrosion proof wiring harness, protected lights, rubber torsion axles, fleet oriented E-Z Lube spindles, 12-gauge deck plate, perimeter stake pockets, tie down rails and a three coat paint system.

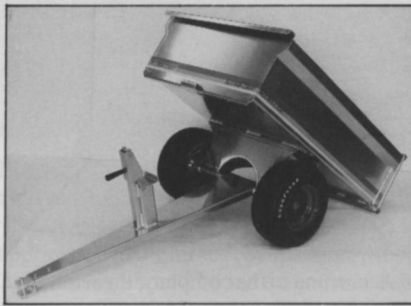
Circle 104 on reader service card

TAG Herbicide T/E, a non-residual contact herbicide, will be introduced early this year by **Chevron Chemical Company**. The T/E stands for trimming and edging.

TAG will have broad application for use in many specialty markets for control of seedling grasses and broadleaf weeds. It will be labeled for use in landscaping, parks, highways, cemeteries, golf courses and greenhouses. TAG will be available in one- and two-quart sizes.

Chevron is also introducing a new one-quart size plastic bottle of Ortho X-77 Spreader™, a non-ionic surfactant for use with insecticides, fungicides and herbicides. X-77 has been used for more than 20 years and has a proven track record for improving the activity of contact pesticides. Circle 105 on reader service card

The new Aluma-Cart by **Czar-Weld Inc.** is an all aluminum dump cart made of 1/8-inch 6061-T6 aircraft quality aluminum. All of its hardware is stainless steel. The



cart's wide tires are Goodyear 16-650-8 for better weight distribution and less lawn damage.

Aluma-Cart features easy assembly with three components. Simply slide the axle assembly through the undercarriage and

tongue assembly, and install the wheels and cotter key.

The product is built for durability yet weighs only 90 pounds, and is rated at 1,000-pound payload with 10 cubic feet of space.

Circle 106 on reader service card

Rainbird introduces a new line of shearing and pruning tools designed to meet diverse landscape construction and maintenance needs.

Built to meet the highest quality standards, the hand-finished shears are manufactured for user ease and comfort. They are constructed of select raw materials including surgical-quality steels and kiln-dried hardwoods. The blades are formed at precision angles for optimum cut, sharpness and performance.

The 13-model line includes pruning, lopping, flower, hedge, trimming and grass shears. Each delivers top performance for specific applications, from light flower cutting to heavy-duty pruning.

For additional pruning needs, Rain Bird offers a new line of saws. Featuring hardwood handles or baked enamel tubular frames, these saws have hardened, tempered, precision-ground blades.

The bow saws have self-locking handles

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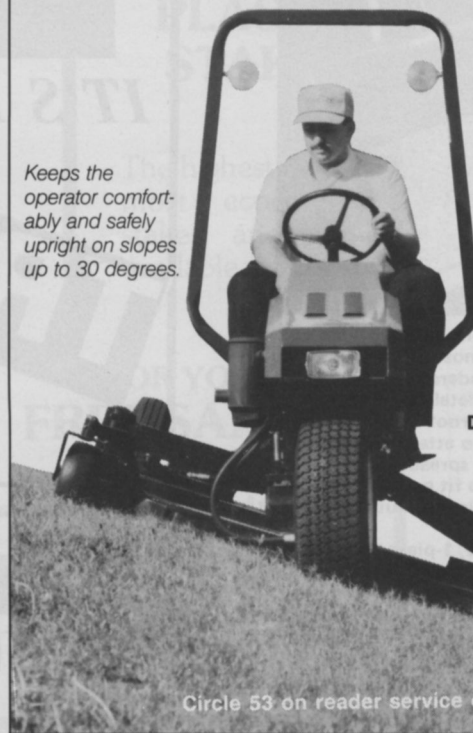
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for quick blade replacement and are available with 21-, 24- and 30-inch blades. All of the models have specially designed teeth for excellent cutting, even of green and fibrous wood.

Rain Bird's pruning saws with folding blades are available in 8-, 10- and 14-inch models. Additional models include a 14-inch curved blade, an 18-inch double edge and two 18-inch professional pruning saws — one with raker teeth.

Circle 107 on reader service card

Lebanon Total Turf Care is now offering a new deep root tree and shrub fertilizer for lawn care and professional arborist use.

Lebanon Nu-Tech Deep Root Tree and Shrub Fertilizer is a 30-10-7 formulation with 15 units Melamine plus secondary micronutrients. Its special combination of 50 percent slowly available water soluble nitrogen, from Melamine, and 50 percent readily available water soluble nitrogen provides a staged nitrogen release which is ideally suited to the needs of landscape trees and shrubs.

Available in 40-pound bags, Lebanon Nu-Tech Deep Root Tree and Shrub Fertilizer should be applied through a soil injection system for deep root feeding. It can be used anytime during the growing season, but preferably from late winter through early

summer.

Circle 108 on reader service card

Magic Circle Corp. introduces two new 42-inch mowers to their line of Dixie Choppers. Available with either 16 or 18 horsepower Kohler Magnum engines, these compact, zero-turning radius mowers feature direct hydrostatic drives that eliminate all drive chains and sprockets.



According to the company, these smaller versions of the Dixie Chopper commercial models are the fastest and most powerful in their class. The heavy-duty construction makes them ideal for meeting the requirements of large cutting operations as well as commercial operators.

Standard features include one-piece formed steel chassis, brushed stainless steel

front and fenders, twin path Eaton hydrostatic axle, low pressure tires, reinforced side discharge mower deck, electric mower drive clutch and heavy duty spindles. Safety features include automatic seat shutoff switch when operator leaves the seat, internal parking brake and neutral lock steering levers.

The 18 horsepower models are equipped with twin 3-gallon fender tanks, deluxe foam seats with arm rests, heavy tubular bumper, 20 x 10 rear turf tires and 13 x 5-6 front tires. Sixteen horsepower models have a single 3-gallon fender tank, standard foam seat, 18 x 9.50 rear turf tires and 11 x 5-4 front turf tires.

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The 4-foot Harrow Rake offered by **Farnam Equipment Companies** is designed specifically to clean up and renew choked out lawns. Growth is stimulated by allowing better penetration of air, water and nitrogen.

The Harrow Rake can be used in the garden to level freshly tilled or plowed ground and adapts to all working conditions and land contours. The rake can be used to pulverize, spread and work in manure. The versatile tool can also be used to level and spread gravel in driveways and parking lots.

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New from **Hako-Werke** is the 30-inch Verticuttor which dethatches grass and collects the clippings in its 7.1 bushel capacity hopper. The Verticuttor's welded-steel construction makes it perfect for withstanding the rigors of lawn, park and greens maintenance. Its blades may be adjusted to provide the spacing of cuts and the depth of penetration required for each particular dethatching job.

Powered by an industrial 203cm³, 3.5 watt, air-cooled engine with electronic ignition, the Verticuttor has two forward speeds and one reverse.

Circle 111 on reader service card

Metasystox-R 2 (MSR 2) ornamental insecticide from **Mobay Corporation** is now labeled for insect control on shrubs, in addition to shade and nursery trees.

MSR 2, by the soil injection method of application, provides control for aphids,



European elm scale, elm leaf beetles, mites and leaf miners.

Watering of the treated area should follow application to promote root uptake of MSR 2. Watering should be sufficient to reach the roots (12 to 24 hours of slow soaking), but should not cause run-off from the treated area.

Circle 112 on reader service card

Available from the **City of Columbus, Sewerage and Drainage Division, Com-**

Til is a mixture of composted sewage sludge and woodchips which conditions soils while providing organic slow-release nutrients.

According to the manufacturer, incorporating Com-Til in potting mixes will improve moisture absorption and retention, and offer you peace of mind while reducing your overall costs. Com-Til is best used on lawns in new construction, however, it can be used as a topdressing on existing lawns.

Now sporting a newly designed package, the "Compost" identification at the bottom of the Com-Til bag makes the product more easily identified while it's stacked on the shelf.

Circle 113 on reader service card

American Trencher Inc. is offering the popular Bradco 6LD Landscaper 6-foot 5-inch maximum digging depth backhoe attachment for the Deutz-Allis 5215 HST hydrostatic drive tractor.

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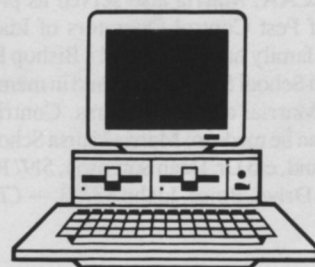
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PLANE CRASH

(Continued from page 29)

"Other than that, there's a few positions we're looking at to replace in the corporate office here. We're starting that right now; interviewing to fill those positions," he said.

Randy Sloan, previously assistant branch manager in Boise, will now be branch manager. He worked as Ysursa's assistant for one year, but has been with the company for about three years, Spicer said.

Although Ysursa often served as the company's attorney, Sloan will not, Spicer said.

"Nick (Ysursa) worked for Idaho Power for six years as an attorney, but we picked him up for his background in managing people. His main role was basically running our Boise branch, and if we ever had anything that we needed an attorney for, we ran it by Nick."

In addition to its corporate offices in Boise, Perma-Green has branch offices in Reno, Nev.; Tri Cities, Wash.; Spokane, Wash.; Salt Lake City; Ogden, Utah; and Twin Falls, Minn. The last three branch offices were opened in 1985, Spicer said.

Before starting Perma-Green, Jim Marria worked for Davey Tree Expert Co. — a third generation employee. Marria worked there until 1974 when he was transferred to the national headquarters in Kent, Ohio.

After some reorganization of the company he became marketing manager. In this position, he conducted the initial market research for the chemical lawn care industry.

With this knowledge, he and another division manager left and started a lawn care firm in Gaithersburg, Md. Later Jim and his family moved back to Boise where they started Perma-Green.

In addition to his longtime association with the PLCAA, Marria also served as president of Pest Control Operators of Idaho.

The family has established a Bishop Kelly High School Scholarship fund in memory of the Marrias and Nick Ysursa. Contributions can be made to: Marria-Ysursa Scholarship Fund, c/o Dr. Dean Sorenson, 5197 Redbridge Drive, Boise, Idaho 83703. — *Cindy Code* ■

The author is Editor of ALA magazine.

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LEASING

(Continued from page 25)

out at the end of 48 months. "Basically you're deferring your down payment until the end of the lease, whereas the bank might ask for it up front. If you look at it like that, then you get an appreciation for how it's working."

PRECISION TANK & EQUIPMENT. Don Wallner, lawn care sales rep from Precision Tank & Equipment, Athens, Ill., said that many customers are initially interested in leasing, but then learn more about it and tend to stray away.

At this time, the company does not have their own in-house plan, but works through different leasing agencies as required by the customer.

Precision Tank & Equipment supplies liquid spray equipment, 200-gallon and up, and can custom-build a unit to customer specifications.

Though Precision Tank will normally have the customer choose the leasing company he feels comfortable with, the company also works with Bush and Cook and M & I Lease Corporation.

Wallner said only a small percentage of their customers lease. "A lot of people are interested but most people I find do not end up going with leasing."

Do LCOs lose interest because of higher rates? "I really don't know for sure though I would have to assume it's the rates. One (leasing) company I deal with is not interested in dealing with this type of equipment. A lot of them want to work on larger scale equipment," he said.

"When you're talking about a \$4,000 or \$5,000 spray rig ... a lot of lease companies kind of turn their nose up at that small of a volume," Wallner said. "They're more geared to the \$30,000 bracket on up. It has more value and they can secure it better with a chassis or something like that."

Wallner also finds that the customer is not always comfortable giving out the financial background required in the application. "I can understand that. Many people feel more comfortable dealing directly with the leasing company."

Wallner foresees more of an interest even in leasing due to the changing tax laws.

RANSOMES. Ransomes, Johnson Creek, Wis., supplies commercial lawn and turf maintenance equipment. Their product line includes both mowers and tractors. Though the company does not directly sell to the end-user, landscapers, municipalities and golf courses can apply for retail financing through their dealer, said Tom Conway, assistant treasurer.

SALSCO. President Sal Rizzo explained that although Salsco, Cheshire, Conn., does not have its own in-house program, the com-

pany does offer the services of six different leasing agencies. Rizzo said that the advantage he has to working with these companies is that he's able to offer his core aerators and slicer seeders to start-up businesses.

To become eligible for the one-, two- or three-year lease, said Rizzo, the customer need only inform Salsco of their interest. "We take it from there. We get the leasing company involved, and it usually takes 48 hours to approve credit. There have not been very many (applications) denied."

Approximately 14 to 18 percent of his customers lease equipment, Rizzo estimated. "It's relatively easy for someone starting up. The consumer doesn't have to use his line of credit to get involved. He can own a \$3,000 machine for about \$100 a month. We just need to get a couple payments up front."

In most cases, a lawn care operator can make more money in a day using the equipment, Rizzo said. "So it's a pretty good deal. At the end of three years, it costs them \$1 to buy the machine from the leasing company."

The convenience can't be beat. "All the customer has to do is tell us he's interested in leasing something and about two phone calls later and 48 hours he's in it. That's about as simple as it gets."

TORO. Marketing Finance Manager Susan Milnar said Toro, Minneapolis, Minn., has a full line of turf maintenance equipment which can be financed through its distributors and dealers. Toro's national program for both consumer and commercial dealerships go through the Whirlpool Acceptance program. "Many dealers offer more than one financing source. Some also use the local bank as a backup."

Milnar added that lawn care operators sometimes prefer to deal with their own banks which are more familiar with them than a national company would be. "Anytime you get into a self-employed servicing industry like commercial cutters, it's harder to get financing. But there is a real need there on their part."

Cash businesses can't always verify income very well and it can get tricky trying to get credit, explained Milnar. "Even with the commercial mowing, you can have an individual that's just in business by himself and it's really more like a consumer. Then you've got somebody with 150 employees. There's a lot in between in terms of profiling. They all have different kinds of needs."

From time to time, Toro also sponsors special promotions with the distributor and dealer such as reduced rate financing. Milnar said the company will work with the distributor and dealer but it's really each dealer's decision as to what will be offered. — *Julie November* ■

The author is Assistant Editor of ALA magazine.

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Winners Only: If you love the lawn care business, and are still looking for your personal security and comfort levels, send us your resume. Your experience should be in all phases of lawn care, management, customer sales and service. We are expanding our operations and will offer the right individual a unique once in a lifetime opportunity. When you prove your abilities, we'll guarantee your success. Send your confidential resume to: P.O. Box 5677, Rockville, MD 20855.

Manager Position

Working managers experienced in all phases of lawn servicing looking for opportunity to grow. We offer lots of work, advancement opportunities to the right people, good to excellent compensation and security. Must be willing to relocate to the East coast (Washington D.C. area) or if you're the right person we will consider you for a new office from Virginia Beach to northern New Jersey. Call or write to: Ron Miller, Super Lawns, P.O. Box 34278, Bethesda, MD 20817, 301/365-4740.

Technician Positions

Turfgrass technicians needed for well-established grounds maintenance and lawn care firm. Successful candidates should have a minimum of one year experience. Send resume with salary history to: R. B. Stout, P.O. Box 287, Bath, OH 44210.

Career Opportunities

ChemLawn is now accepting applications for the positions of Lawn Specialist in our expanding Florida markets. Join the nation's leader in lawn care. Send resume to ALA, Box 323, 4012 Bridge Ave., Cleveland, Ohio 44113.

Envelope Stuffing

\$1,000s WEEKLY POSSIBLE stuffing envelopes. Rush stamped envelope to: Success, Drawer 389, Clanton, Alabama 35045.

Manager Position

Top Firm Needs Top Person: Quality conscious, Texas-based landscape management firm has immediate opening for detail-oriented Operations Manager and/or Business Manager. If you have outstanding professional, managerial and horticultural skills and are not afraid of hard and healthy teamwork, then you could qualify for a top position with the finest landscape firm in the southwest. Outstanding compensation and opportunity. Reply today to: ALA, Box 325, 4012 Bridge Ave., Cleveland, OH 44113.

FOR SALE

Lawn Care Equipment

1982 International S1700 with 9 liter diesel and 1979 International S1600 with a 345 h.p. V8. Both units equipped with 800 gallon Finn lawn feeders which include PTO hydraulic pump, mechanical agitation, dual reels with 400 feet of Michelin hose. Both units in excellent condition. Ready to go. Call: F.R. Haskett at 216/364-7544.

Equipment

Meyers 2C95 Centrifugal Pump \$350. Call 715/341-7956.

Equipment

Two 300-gal Tuflex rectangular tanks (one is split tank), reels, hoses and guns, new '84 and '85; Two 1,500-gal vertical storage/transport poly tanks with portable delivery system, new '86; Ryan Lawnaire IV Aerator, new '86, used for 40,000 s.f. \$5,200 firm for all. Near Lansing, Michigan. 517/646-6141.

Business Opportunity

Lawn spray business servicing approximately 5,000 accounts in Detroit metro area. Excellent routing. Low square footage. Good profit margin. Respond to: ALA, Box 327, 4012 Bridge Ave., Cleveland, OH 44113.

Business Opportunity

Chemical lawn care company for sale in central Wisconsin. Established nine years. Solid commercial and residential accounts with excellent potential for expansion. For information write ALA magazine, Box 328, 4012 Bridge Ave., Cleveland, OH 44113.

Lawn Care Equipment

Hannay reels new in-the-box, E1526s, E1530s, \$339; lawn spray hose, 275 psi and 600 psi, all sizes; original Imler measuring wheels, \$48; glycerin-filled gauges, 0-6-psi to 0-1,000 psi, \$19.95; polypropylene ball valves, 1/2-inch to 2-inch; ChemLawn guns, \$75.95; lawn spray boots, \$16.95; lawn spray gloves, \$1.25-pair. Call **Hersch's Chemical, Inc.**

800/834-LAWN — outside of Michigan
313/543-2200

WANTED

Sprayable Team distributors in select areas. Please call 1-800-225-2639.

Sprayable Team users. Please call for prices. 1-800-225-2639.

Rates: All classified advertising is 55 cents per word. For box numbers, add \$1 plus six words. 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. Submit ads to: ALA Magazine, 4012 Bridge Avenue, Cleveland, Ohio 44113.

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EXTRA!

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The Daily Sun

GREENSBORO, WEDNESDAY, NOVEMBER 1, 1987

NEW INSECTICIDE STOPS GRUBS IN 3 DAYS!

"Lawn care experts get 90% control in 3 days!"

by THOMAS BAGOT

Recent label approval by the Environmental Protection Agency marks the introduction of the ultimate product for grub control. New Triumph offers lawn care professionals many advantages in grub control.

- Because it's fast acting it controls grubs in 2 to 3 days.
- Triumph's superior chemistry provides/delivers over 90 percent grub control quickly and maintains that performance over 10 weeks.
- New Triumph also controls surface insects and mole crickets and is labeled exclusively for use by lawn care professionals.
- And new Triumph's liquid formulation and low rates mean

The fast acting control of Triumph stops root damage from grubs in a hurry so your homeowner customers can relax and feel confident that the grub problem is gone.

One application of Triumph per year in the fall is all you need to control grubs consistently and effectively. Years of testing shows that Triumph continues to control grubs for over two months. This should prevent retreatment until the following season.

Triumph goes to work faster than other products you've used. Within two days of application, you see Triumph control grubs and other insects. That means you stop grub damage quickly, reducing complaints and keeping your



INTRO THE BEST NEWS TO H

© 1987 CIBA-GEIGY Corporation. CIBA-GEIGY Turf and Ornamental Products, Box 18300, Greensboro, NC 27419. Always read and follow label directions. Triumph is a restricted use pesticide and is not for use on sandy soils. For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator certification.



New Triumph[®], from CIBA-GEIGY, provides, on average, over 90% grub control in just two to three days. And there are over 10 years of major university and CIBA-GEIGY trials to prove it.

Triumph offers broad spectrum control of surface feeders like chinch bugs, sod webworms, army worms, chionodes, plus sub-surface mole crickets and annual bluegrass weevils.

Application in late summer to fall can prevent turf insect damage by eliminating grubs when they're small, before they can damage roots. And if grub damage appears in spring and summer, application of Triumph quickly stops further damage.

When your customers call you with a grub problem, they want results fast. And that's what they get with Triumph. And, because Triumph is restricted to lawn care applicators, your customers can only get it from you.

CIBA-GEIGY



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before using any
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The combined efficiency of 2,4-D, MCPP and dicamba stops more than 30 weeds with a single application. Including tough problems like ground ivy and spurge.

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Outstanding weed control at an economical cost. No wonder LESCO Three-Way Selective Herbicide is still the first choice of professional turfgrass managers.

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