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Lawn & Landscape MAINTENANCE

VOLUME 14, NUMBER 11

NOVEMBER 1993

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Comstock Inc., N.Y., N.Y.

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Editor's Focus

THIS ISSUE IS dedicated to the people who have made the lawn and landscape industry what it is today. Without these guardians of the environment, the professional landscape industry would not have achieved the remarkable growth it has experienced in the last 25 years.

While activists will try to tell the public that green industry business people are just out to make a buck, I beg to differ. The men and women who have participated in the evolution of the lawn and landscape industry are some of the most innovative, hard-working, honest people I've met.

My perceptions were continually reinforced as I embarked on this month's Who's Who list of industry movers and shakers. My only regret is that we didn't have room to mention everyone who has made a contribution — large or small — to the improving reputation of the professional contract market.

Too often, the positive contributions of industry contractors are overshadowed by the unprofessional acts of a few unscrupulous operators or the lingering publicity generated by one negative article appearing in a national publication. Unfortunately, that's part of business.

What's significant are those who gather strength from adversity, and manage a professional business in spite of sometimes overwhelming odds. This strength of character is evident in business men and women across the country who run profitable businesses, and still find time to give of themselves to their associations and peers.

Those who have established themselves as industry leaders take the time to hire and retain quality, satisfied employees. They map out a path of advancement for their employees and teach them the importance and relevance of customer service. In addition to the people functions, a good leader knows the ins and outs of his business structure; knows how much it takes to make a profit, to keep unplanned overtime at a minimum, to keep equipment in the field where it belongs rather than in the shop and so on.

To round out these business successes, good leaders take the time to influence the big picture. They are interested in the prosperity of the entire industry because not only is it in their best interests, national recognition feeds the ego and instills further growth and commitment. It's a win/win situation for everyone involved.

Which brings me to the folks who have made the Green Industry Expo what it is today. Together for four shows now, the executive directors, board members, suppliers and end-users who have contributed to the success of the show underscores the importance of the lawn and landscape sector of



the entire green industry. The unselfishness of the three associations behind the GIE Expo — the Associated Landscape Contractors of America, the Professional Grounds Management Society and the Professional Lawn Care Association of America — is a significant feat in light of the industry's competitiveness.

While continuing to search for their own identities, increase individual memberships, solidify finances and offer a complete membership package, the executive directors of the three associations have put differences aside for the good of the manufacturers and suppliers, dealers and distributors and consultants and end-users alike who desire one show to call their own.

Each and every one of them should be congratulated for their contributions.

Coinciding with our recognition of the guardians of the environment, this month we'll begin offering a new series, "Specialty Pesticides in the Urban Environment." The series is designed to provide our readers with information which can assist them in employee training, customer education, communicating with politicians and the media and a general overall knowledge of the importance of and the proper use of specialty pesticides including industry alternatives.

As the industry becomes increasingly competitive and proper licensing and certification become a necessity, it's important for the industry to educate themselves, police themselves and apply pesticides accurately and appropriately. It's also in your best interests to let your customers know what you're doing, answer their questions honestly and in terms they can understand.

The specialty pesticide series will run throughout 1994 beginning with an overview this month. — *Cindy Code*

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Business Watch

LOW MORTGAGE RATES finally began to impact the new housing market in August. Housing starts shot up 7.8 percent to the highest level this country has seen in three and a half years, according to the U.S. Commerce Department.

Building activity rose in every region of the country except the Northeast. This news should be well received by landscapers.

"We've finally broken out of it," said Robert Dederick, chief economist for the Northern Trust Co. in Chicago.

Analysts attribute the housing spurt to low mortgage rates, resulting from President Clinton's initiative to cut the federal budget deficit by \$500 billion over five years.

"One month does not a trend make, but this is the first real sign that lower interest rates and lower prices seem to have a positive impact on the housing industry," said White House spokeswoman Dee Dee Myers.

David F. Seiders, an economist with the National Association of Home Builders, agreed that low interest rates were the "dominant factor" in the improvement in the housing sector. But he predicted new construction would level off at about the August level for the remainder of 1993.

CONSUMER PRICE INDEX*

JUN.	JUL.	AUG.	SEP.
0.0	+0.1	+0.3	+0.0

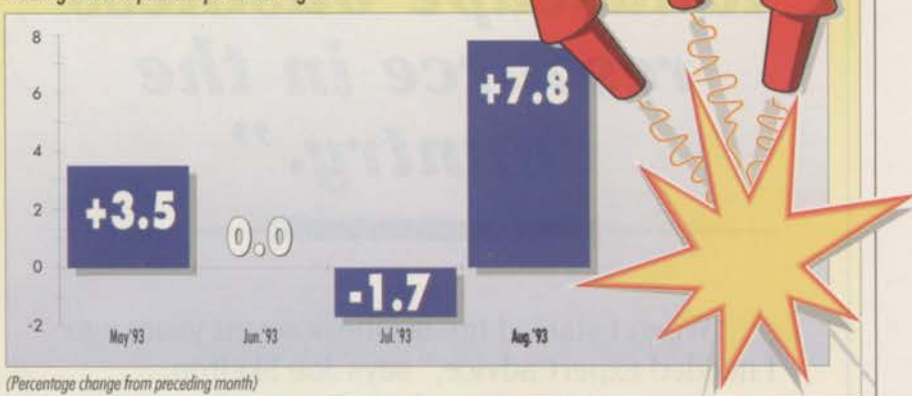
*Percent change from preceding month (seasonally adjusted).

UNEMPLOYMENT RATE

JUN.	JUL.	AUG.	SEP.
7.0	6.8	6.7	6.7

KA-BOOM!

Housing starts exploded upward in August.



(Percentage change from preceding month)

Source: Bureau of the Census

NEW HOME SALES

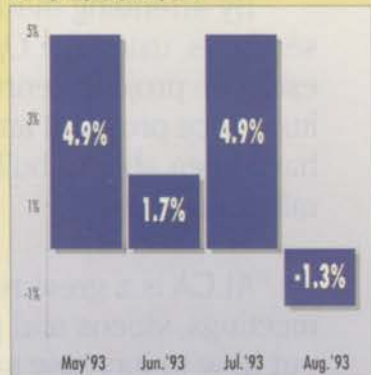
(Percentage change from preceding month)



Source: Bureau of the Census

SALES OF EXISTING HOMES

(Percentage change from preceding month)



Source: National Association of Realtors

GENERAL WEATHER FORECAST FOR EARLY 94

THE OLD FARMER'S Almanac, the popular prognosticator of weather and related events is calling for warmer than normal weather from November through March in the Northeast and west of the Rocky Mountains and slightly warmer than normal in the eastern Great Lakes down through the Ohio River valley.

The South and the Lower Great Plains will be close to normal or just below. Southern California and central and southern Florida will be below normal; the upper Great Plains and western Great Lakes will be much colder than usual.

Precipitation will be variable. Well above normal amounts are expected in much of New England, the Ohio River valley and the Northwest; slightly above over the rest of the Northeast, the Great Lakes and the far North through the northern Rockies.

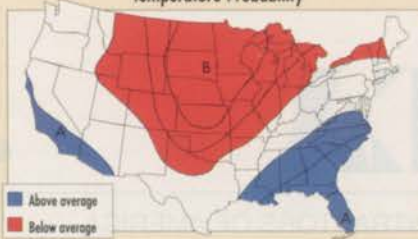
Much of the southern half of the country may be significantly dry, and a large part of the Great Plains may receive slightly below normal precipitation.

Snowfall will be below normal in New England, the southern Sierra Nevada Mountains and southern California, but above normal in northern California, Utah, the Cascades, most of the Rocky Mountains and across the far north of the country through the northern Great Lakes.

Spring is anticipated to be significantly cooler than normal over most of the country.

60-Day Outlook for November and December

Temperature Probability



Precipitation Probability



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Letters

Compost Complexities

I am responding to the recent Compost Corner article by Jim Wilkinson of Earth Gro (August 1993) with the following concerns:

First of all, compost is not an adequate substitute yard for yard for topsoil. The article seems to indicate that topsoil and compost can be interchanged. The author does point out at the end of the article that the compost should be incorporated prior to seeding. However, no levels of incorporation are given — depth, guidelines, etc. This could be extremely dangerous from the standpoint that the article may suggest direct substitution of topsoil with compost. This is not acceptable from a physical, agronomic or chemical standpoint for growing plants, especially for most landscape situations which require an approximate 4- to 8-inch layer of topsoil.

Secondly, the author states that compost typically contains 20 percent to 30 percent organic matter. This is incorrect in my opinion. Degrees of organic matter in compost depend largely on the other ingredients. Sludge compost with sawdust

and barks can range as high as 75 percent organic matter, while manure composts with little bulking agent may be as low as 20 percent. Obviously, the range of composts is extreme; however, the individual source should be very consistent.

Thirdly, the author states that compost made from sewage sludge and municipal solid waste may contain contaminants. Although this is sometimes true, the quality control standards already in place for sewage sludges are much higher than those mandated for yard wastes and animal manures. This stems from a long history of municipal waste-water treatment standards that naturally gravitated into sewage sludge compost standards. Therefore, quality control programs and testing parameters for sewage sludges may be more rigorous than other generic materials like yard wastes and animal wastes.

Rod Tyler
Kurtz Bros. Inc.
Independence, Ohio

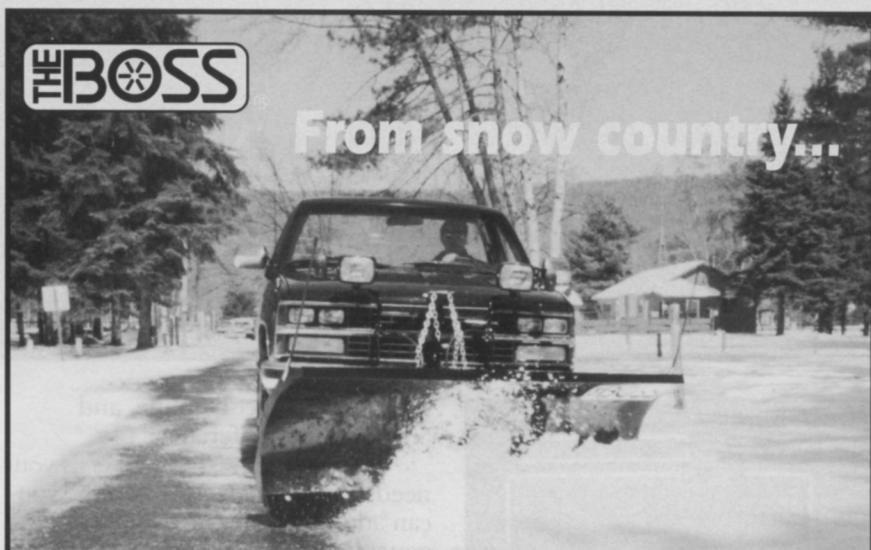
Many points were well outlined in the Compost Corner article, August 1993. Overall advantages of compost were covered, and

the repetition of these practical ideas will eventually increase use among professional landscape contractors.

Points made in the Wilkinson article with which I have difficulty are: that compost must be completely stable and mature for use; that metal content should impact marketability and determine use; that compost made from animal manures and sewage sludge (biosolids) should be incorporated into the existing soil before planting or seeding; and that salt content and nutrients will hinder seed germination.

Compost quality is not a function of existing laboratory analyses which can be guaranteed by standard soil, nutrient and waste test results. Maturity has a bearing on the specific application but, just like particle size, means nothing in relation to the ultimate quality of the material. Immature product, still capable of producing high temperatures in the pile once they have turned the corner during the process, can be invaluable to seeding, topdressing and specific applications where high microbial activity and nutrient content are important.

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former and the new EPA 503 standards for metals, the product will not exceed agronomic phytotoxicity unless the generator is dishonest or the end user applies more than the recommended amount per unit of area. Metals are everywhere and exist in all soils from where they were mined in the first place.

Composts made from animal manures and sludges (biosolids) may be applied to the surface of any soil, turf, plant bed or container when the results are predictable and desirable. It is expected that biological benefits are at their highest when applied in this way. I have been a landscape contractor for 25 years and have seen no ill effects from applying manure or sludge based composts to the surfaces of plant media.

The point of these comments is not to debunk the knowledgeable Dr. Wilkinson, but to intimate the complexity of the field of compost use. The amazing results yielded in landscape and agricultural applications at times, contradict knowledge dictated by conventional practices.

The longer we take to fix these standards, the more complete they will be. Compost use should not be decided by the down and dirty analyses of conventional methodologies. The green industry should accept

Worker's Comp Critic

Nice Editor's Focus (July 1993), but there's more to the issue than meets the eye. I have had one major claim — a cut off thumb — in 30 years of business yet the cost of our workmen's compensation went up first 30 percent, then 22 percent. Our insurance commissioner got a big settlement, as did a lawyer, as did a doctor as did...

The most negative factor of workmen's compensation is the belief by the employee that the government was set up to take care of them. There is so much cheating in workmen's compensation that it is unreal.

You see cost is not controlled by payers — people who pay. Costs are controlled by lawyers suing everyone.

*Fred Pence
Pence's Garden
Lawrence, Kan.*

interim standards and remain flexible until the predictable and agronomically safe results are known.

*Tom Glendinning
Wastek and Green Glen Ltd.
Pittsboro, N.C.*

Budding Contractor

First, let me say "job well done." I've been an amateur lawn enthusiast for years and recently became an agent for Quality Lawns (formerly Quality Home and Lawns). As

such, I am aggressively pursuing an education in lawn care and improvement and yours is a publication I intend to rely heavily on to provide me with up-to-date, state of the art information and procedures.

*Frank Tate
Frank B. Tate
Jonesboro, Ariz.*

Letters to the Editor are encouraged.

Send them to: Cindy Code, Editor, *Lawn & Landscape Maintenance* magazine, 4012 Bridge Ave., Cleveland, OH 44113. ■



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Computer Bytes

RULES TO THE COMPUTER BUYING GAME

YOU'VE FINALLY made the decision to plunge into the world of computerization. After years of putting off the inevitable, you're convinced your business needs a computer if you're going to remain competitive.

The next step is deciding what kind of system to buy, how much money to spend and how to keep the system from going obsolete in a month. There are guidelines that can make this task more pleasant. The first rule is to stay away from the computer stores until you have completed rules two and three.

With a firm understanding of rule one, move to rule two: Set your budget. Many make the mistake of shopping for a computer before setting a budget. This is dangerous because you're likely to get caught in the low-price bargain hunt or be convinced to buy more computer than you need.

In a computer budget, be prepared to spend the entire amount to get the most computer possible for your dollars. Be careful not to shave the budget just to save a few dollars. Many times a lower price

simply translates to less computer or less reliable components. By spending the entire budget, you'll end up with a more powerful and faster system which is less likely to become outdated.

Let's say you've looked at two computers that both meet your immediate needs. The first one has a 386 processor operating at a speed of 33 megahertz and is priced at \$1,195. The second has a 486 processor also operating at 33 megahertz and is priced at \$1,595. Your budget is \$1,700 so you can easily afford either computer, but the 386 is \$400 less.

Don't be too hasty here. Many 386 class computers are already somewhat obsolete. The 486 computer will be able to handle today's more graphically oriented programs and will run most applications much faster than the 386.

While a few seconds here and there may not seem worth \$400 now, you'll probably hate yourself for buying the slower machine once you've learned more about the system. More importantly, the 486 may be easily upgraded to the next class of processor

while the 386 may not. This means that your investment will be able to handle your needs for many years to come.

Rule number three involves making a list of the types of things you want to use in a computer. It is important to think ahead and plan for the future. Make the list as complete as possible to ensure that the computer will grow with the business without spending money now for options you will never need. Include any peripheral devices you may need such as a printer, mouse, tape back-up or CD-ROM drive.

Your list should also include the types of applications needed. Almost every business needs word processing, spread sheet and possibly database applications. However, your business may also want to produce graphics for mailers, flyers or customer presentations. If you plan to offer your customers a pamphlet with suggested maintenance guidelines or special instructions, you may want to look at desktop publishing to merge sophisticated graphics and text.

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power in your computer to design the landscape or irrigation plans with more speed and precision. As you can see, your computer can do a lot to make your business more productive. Buying a computer with the ability to run design, desktop publishing or graphics programs does not mean you have to spend a lot more money. However, these types of programs will require more memory, possibly more space on the hard drive and may require the addition of a math co-processing chip as well.

Rule number four is to use your resources and browse through several personal computer magazines such as *PC World* or *PC Magazine* prior to making your purchase. In fact, it may be worth subscribing to such a magazine to not only help in making the purchasing decision, but for some great user tips after the computer purchase has been made.

After your research is completed and you have a firm understanding of your needs, rule five is to carefully select a dealer.

If possible, choose a well-known, established dealer. If you have problems with the system you want to know that the store can help you. Be particularly careful buying from a mail-order business. Many such companies have had a difficult time staying

Steps to Success

- ✓ Establish your budget first.
- ✓ Make a detailed list. What does your business need now and in the future, i.e.: word processing, landscape and/or irrigation design, desktop publishing, graphics, financial spread sheets and database functions.
- ✓ Make use of personal computing magazines to become familiar with industry jargon, various hardware peripheral devices available, software applications, major manufacturers and pricing. Also rely on these magazines to stay current with technology and for user tips and guidelines.
- ✓ Choose your dealer carefully.
- ✓ Understand the warranty and compare warranties from different manufacturers and dealers. Be sure system components are reliable and high quality.
- ✓ Buy as much computer as you can for the budget you have established.

in business with the decline in hardware prices. More than one consumer has been left out in the cold by buying on price alone.

Rule number six, regardless of where you buy, is to be sure to understand the warranty. If the dealer goes out of business, is the system warranted directly with the manufacturer? In the case of mail order, does the system include on-site warranty? If so, what company provides the service and who determines when on-site repair is necessary? Many times, companies

advertise on-site warranty, but still require you to return the system for repairs.

If you are buying a custom-built system, find out what brands of components will be used. Avoid low cost and somewhat unreliable components in the name of savings. It's not worth the aggravation down the road to save a few dollars now. —
John Elliott

The author is a director with Irrigation Technologies Inc., Houston, Texas.

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NEWS DIGEST

Philip Nelson Named New Valent President

Valent U.S.A. Corp. named Philip Nelson, formerly of Rhone-Poulenc, its new president. Frank Santos will retire from the post effective Jan. 1.

Nelson has worked more than 30 years in the ag/chem industry, most recently serving three years as director general of Rhone-Poulenc Agro Sector operations in Africa, Latin America, the Indian subcontinent, the Middle East, Australia and Japan.

Club Car Announces Initial Shares Offer

Club Car Inc., purchased by Kelso & Co. L.P. in a 1988 leveraged buyout, filed with securities regulators to take 4.125 million common shares public. Of those shares, Kelso entities plan to sell 1.21 million, trimming its holdings in the golf cart company to 22.7 percent from 54.5 percent.

An affiliate of First Boston Corp. will also sell 217,000 shares with the remaining 2.7 million shares expected to be offered by the company. According to the filing, the initial price will be about \$14 to \$16 per share.

Barefoot Grass Initiates Lawnmark Acquisition

Barefoot Inc., parent company of Barefoot Grass, Worthington, Ohio, entered into a definitive purchase agreement to acquire the assets of the Lawnmark lawn care businesses operating in Maine, Vermont and New York. Lawnmark is based in Hudson, Ohio. The businesses are expected to generate revenues of about \$8.4 million in 1993 in the three markets targeted for acquisition. The sales is expected to close April 1, 1994.

Snapper Hopes To Turn It Around

Despite persistent rumors, Snapper Power Equipment is not for sale.

Jim Jenkins, Snapper marketing manager, said the firm's parent company, Actava, had been looking for a buyer for Snapper. Snapper was even listed with Meryll Lynch, but a new CEO gave the firm a reprieve. Jerry Schweiner, president and CEO since midyear, is charged with turning the company around to a more profitable position.

"Things are definitely starting to turn. The last few years have been extremely price competitive," Jenkins said. "Snapper has greatly broadened its product line, with commercial products expected to bring growth in the future."

California 'Cops' Bust Unlicensed Landscapers

THE CALIFORNIA Landscape Contractors Association and Contractors State License Board caught eight unlicensed landscapers in an undercover sting operation.

The CSLB solicited the CLCA's help in tracking unlicensed contractors to prevent them from performing lawn and landscape services while failing to pay taxes or workers compensation insurance. This trend, coupled with a weakened economy, has hurt legitimate businesses in Southern California and pockets of northern California.

The stings are conducted by CSLB's Unlicensed Activity Unit.

In operation since October 1989, the unit establishes a residential property needing landscape work and arranges for bids from contractors who advertise without an indication of licensure. Initially restricted to Southern California, the operation recently expanded statewide.

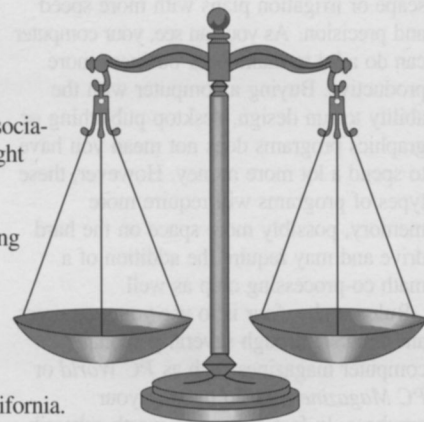
Violators are offered an application for licensure, and issued either an administrative or a misdemeanor criminal citation. Most unlicensed contractors (on jobs paying at least \$300) caught in a sting operation are given an administrative citation and fined \$200 to \$15,000, depending on the severity of charges. A criminal citation can lead to a fine and/or jail sentence. Interestingly, a law enacted last January dictates that any licensed contractor caught working with an unlicensed contractor can also be fined up to \$15,000.

Only contractors receiving a criminal citation are technically arrested. "But usually it's like getting a traffic ticket," said Mickey Matsumoto, chief of enforcements for the CSLB. "They receive a citation. If they fail to appear in court, then a warrant will be put out for their arrest."

CLCA's San Francisco Bay Area/North Chapter supplied CSLB with information on the eight unlicensed landscapers. This is the first CSLB sting operation in which CLCA played a role. "We provide CSLB with information on the unlicensed operators we want to see invited to the sting operation, the name of a local member contact for each operation and sometimes the use of a residence for the day of the operation," said Richard Cohen, CLCA's licensing committee chair. "The success of the first sting operation may spur other CLCA chapters to provide necessary information for their respective areas."

CLCA plans to expand its consumer education program on unlicensed operators; track and follow up complaints from members; form a coalition with other trade associations to pool resources and share information; and possibly sponsor more strict legislation.

The CSLB Unlicensed Activity Unit issues about 2,000 citations annually to unlicensed contractors offering landscaping, construction, plumbing and other services.



EPA Re-Registers Fungisol Fungicide

The U.S. Environmental Protection Agency conditionally re-registered J.J. Mauget Co.'s Fungisol debacarb fungicide while it conducts additional tests. The product has been under re-registration review for three years.

Fungisol was initially registered by EPA in 1982 after 11 years of developing field test data and toxicology as well as product chemistry studies. It was available commercially for eight years to control cankers, wilts, blights and declines of shade trees.

Mauget needs to wait for completion of "a few additional tests that won't necessarily affect the re-registration, but would just complete the package," said a company spokesman. The complete testing and data compilation will take about six months. The Mauget micro-injection system uses a capsule containing a premeasured dose of

material. An applicator feeds a short tube into a small hole drilled in the tree's xylem tissue, on top of a root flare. The capsule, pressurized to 5 to 10 psi, breaks a septum and permits material to flow directly into the tree's sap stream.

Homeowners Rank Lawns a High Priority

Homeowners believe the importance of personal benefits of a lawn outweigh environmental benefits, according to a focus group study commissioned by DowElanco Specialty Products.

The in-depth study, conducted by MAR-QUEST Research, attempted to discern homeowners' perceptions of the benefits of their lawns, as well as their attitudes toward pesticide use and posting.

Homeowners identified aesthetics — "curb appeal," re-sale value and personal

sense of accomplishment or pride — as the main benefits derived from maintaining a healthy and weed-free lawn.

Additionally, respondents said lawns allow them to spend "quality time" with family, friends and pets, and enjoy outdoor activities such as cookouts and volleyball. Surprisingly, personal benefits of grass even outweighed environmental benefits such as providing oxygen, preventing soil erosion and filtering contaminants.

"The homeowners in the study clearly demonstrate the value and importance people place on their lawns, said Bill Culpepper, director of public affairs for DowElanco.

Focus groups were conducted in Columbus, Ohio; Atlanta, Ga.; Salt Lake City, Utah; and Philadelphia, Pa. Participants were chosen from one of four categories: those who subscribe to a lawn care service, do-it-yourselfers, those who mow only and those who make no decisions relative to lawn care (apartment dwellers, etc.).

EPA Studies Why It Rejects Pesticide Studies

The U.S. Environmental Protection Agency is trying to figure out why it rejected so

many pesticide studies for re-registration in the early years. The agency largely blames studies submitted without meeting all EPA requirements for delays in re-registration.

A recent EPA study shows fewer pesticides are being rejected now than when the re-registration process began. Prior to 1986, 47 percent, or 38 out of 81 studies reviewed for residue chemistry guideline requirements, were rejected. The rejection rate dropped to half that between 1986 and 1988. Since then, only 30 of 252 studies submitted have been rejected for failing to meet chemistry guideline requirements, according to the Chemical Specialties Manufacturers Association.

The rejection rate analysis, developed by the EPA's Office of Pesticide Programs to determine why manufacturer's pesticide studies are being rejected, shows that in 1985, 6 percent of studies submitted to EPA were rejected for not meeting toxicology guideline requirements. That figure rose one point between 1986 and 1988 and has since hovered at 7 percent.

EPA rejected about 7 percent (128 of 1,814) of supplemental studies submitted prior to 1985 for not meeting toxicology guideline requirements. That figure rose to

11 percent by 1988 and 12 percent since.

The environmental fate guideline requirement rejection rate was 54 percent (99 out of 183), before 1986. That rate dropped to 41 percent by 1988 and to 28 percent in recent years.

Before 1986, 32 percent of all pesticide studies submitted were rejected for not meeting all ecological effects guideline requirements. The figure dropped to 18 percent by 1988, but has since risen to 21 percent.

The EPA plans to use the data to develop ways to ensure studies meet requirements, which should prevent further delays in re-registration.

Landmark Ranks In Inc.'s Top 500

Inc. Magazine ranked Landmark Services Corp. T/A Landmark Landscape Management, Richmond, Va., 453rd in its 12th annual list of the top 500 fastest-growing, privately held companies.

Landmark provides turnkey contract grounds maintenance services to commercial, institutional, industrial and multi-family sectors in central Virginia.

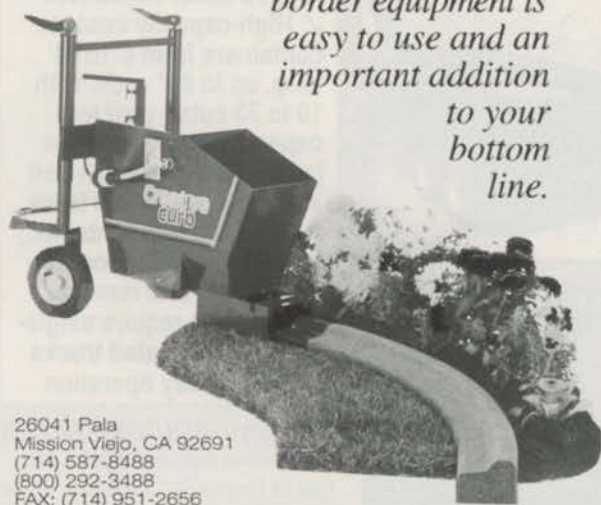
Of *Inc.*'s 1993 list of 500 companies, 307

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or 61 percent are service related; 122 are manufacturing; 35 are retail and 36 are distribution related.

Eligible companies must be independent and privately held. *Inc.*'s ratings are based on a company's percentage increase in sales from 1988 through 1992. Companies must show at least \$100,000, but no more than \$25 million, in sales for 1988, and register a sales increase between 1991 and 1992.

Landmark's sales jumped from \$197,650 in 1988, its first year in business, to about \$1.2 million in 1991. Last year the company reported about \$1.4 million in sales, while 1993's estimations are set at \$1.7 million.

Woods Equipment Acquires Du-Al

Woods Equipment Co., a power equipment manufacturer, acquired the assets of Du-Al Manufacturing Co., maker of tractor-mounted front-end loaders, backhoes and trenchers. The acquisition included Du-Al front-loader manufacturing facilities in Sioux Falls, S.D.

The purchase significantly broadens Wood's tractor-related product offerings and retail distribution. It also builds Woods'

dealer base to 4,100 (from 3,800).

Du-Al manufactures 12 models of front-end loaders for various tractor sizes ranging from 11- to 200-h.p., as well as commercial backhoes adaptable to farm tractors and skid-steer loaders.

Toro's Irrigation Class Set for Mid-January

The first 1994 Toro University program, slated Jan. 10-12 in Ontario, Calif., features a seminar by construction expert and consultant Charles Vander Kooi.

Vander Kooi's address, titled "Bidding & Estimating," will be followed by an intensive, two-day workshop aimed at teaching participants to set up Vander Kooi's estimating system using their own labor and equipment costs.

The Toro Co.'s Irrigation Division, which runs Toro University, plans to expand the once-a-year event into a year-round training program.

Former AAN Exec Dies at Age 96

Former American Association of Nurserymen executive vice president Dr. Richard

White died Oct. 9 after a short illness.

White served as AAN's executive secretary from 1938 to 1961.

White was director of the Horticultural Research Institute from 1961 to 1965. After retiring, he researched and wrote *A Century of Service*, a book about the history of AAN. Additionally, White served as president of the American Horticultural Council in 1959 and of the American Horticultural Society in 1960.

The many honors he garnered include the Massachusetts Horticultural Society's George Robert White Medal of Honor; the American Pomological Society's Marshall P. Wilder Medal and the American Society of Association Executive's Distinguished Service Award.

White was inducted in AAN's Nurserymen's Hall of Fame in 1975.

NOR-AM Remembers Employee's Devotion

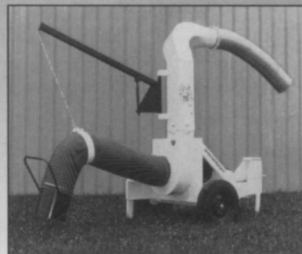
Don Kubala, former salesman for NOR-AM Chemical's specialty products division, died of cancer Oct. 2.

Kubala joined NOR-AM in 1989. He formerly worked for Velsicol Corp., starting

(continued on page 94)

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USE READER SERVICE #41

Association News

THE ASSOCIATED Landscape Contractors of Colorado is combining trade shows with the Colorado Nurserymen's Association, offering what could be the largest Western green industry trade show.

The first ProGreen Expo and conferences will be held Feb. 22-24 at the Colorado Convention Center in Denver.

ALCC and CAN shows in past years were fairly large regional shows, each boasting about 200 exhibitors and 2,000 attendees. The ProGreen show is expected to draw 500 exhibitors and at least 3,000 attendees.

Both ALCC and CAN will keep their educational tracks and conferences separate. ALCC's seminars cover irrigation, business, construction, maintenance and xeriscaping.

Joint efforts between associations is becoming common, as evidenced by the American Association of Nurserymen choosing to hold its show in conjunction with regional nursery associations.

Consolidation is the next wave of change to hit associations, speculated Tom Garber, owner of Colorado Landscape Enterprises in Westminster, Colo., and member of ALCC. "It's happening in corporate America. And I think it's bound to happen in associations as

For more information...



ALCC

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ALCA

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703/620-6363

PGMS

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Hunt Valley, MD 21031
410/584-9754

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114 S. Pitt St.
Alexandria, VA 22314
703/739-2401

PLCAA

1000 Johnson Ferry Road, NE
Suite C-135
Marietta, GA 30068
404/977-5222

well. I just don't think people anymore can afford to carry the overhead of having all these real narrowly defined groups," he said.

The Associated Landscape Contractors of America has lined up Steve Carline of CareerTrack in Boulder, Colo., to speak at its 1994 Executive Forum Jan. 23-26 in Hawaii. Carline authored the training video "How to Interview and Hire the Right People."

The theme for the 1994 forum is "The Exceptional Landscape Employee...How to Select and Develop Quality People."

In other news, two of seven landscapers passed ALCA's second certification exam Sept. 20. David Frank of David J. Frank Landscape Contracting, Germantown, Wis., and Edmond Laflamme of Laflamme Services, Bridgeport, Conn., conquered the six-hour exam which covered business planning, accounting and management;

(continued on page 20)

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Association News

(continued from page 17)

health safety and human resources; production/operations and horticulture; risk, law and contracts; and sales, marketing, communications and public relations.

An officer of the **Association of Physical Plant Administrators of Colleges and Universities** will attend the **Professional Grounds Management Society's** annual meeting in Baltimore this month, a move

PGMS views as a giant step toward promoting grounds management among related industries.

PGMS has worked closely with APPA and the **American Public Works Association** to develop a basis for exchanging ideas and information. John Gillan, acting executive director of PGMS, said a long-range goal for PGMS is to exchange memberships with the organizations.

"Once the relationships are established, they will continue to strengthen," Gillan said. "It's an indicator of a positive working

relationship. It's potentially very big for us."

PGMS and the Midwest branch of APPA held a joint seminar earlier this year which Gillan hopes will serve as a model for developing other PGMS/APPA liaisons.

Bob Rubel, incoming president of PGMS, is working to cement ties with APWA. He spoke at the association's September meeting in Phoenix.

The U.S. Senate passed a bill appropriating \$200,000 for **The Composting Council's** organics management program, a joint effort between the council and the Composting Council Research & Education Foundation and The Louisiana State University Agricultural Center.

The program requires the U.S. Department of Agriculture's Soil Conservation Service to develop application guidelines in conjunction with composting operator and applicator certification and training. The initiative serves as an important step toward integrating organics management into the United States' overall approach to managing the ecosystem.

Legislative interest in composting appears to be increasing. The Senate bill, as well as the Executive Composting Act introduced in the House of Representatives, is "a critical first step" in bringing organics management and composting to the political front burner, said Charles Cannon, executive vice president of The Composting Council.

Clearing leaves from a lawn regularly, even in late fall, helps keep plants exposed to the sun's rays, according to the **Professional Lawn Care Association of America**.

"In fall, grass plants go through a change. They use less energy for leafy growth that has to be mowed, in order to store more food in the root system for root zone development and a thicker, healthier lawn in spring," said Bob Tracinski, division manager of media relations for John Deere Co. and a PLCAA board member.

Chopped leaves can be composted and used as a decorative mulch.

IN BRIEF...More than 425 industry professionals attended The Landscape Expo, sponsored by the Landscape Contractors Association, MD-DC-VA, in Burtonville, Md. Sixty-seven companies exhibited their products and services...The American Horticultural Marketing Council has relocated. Its new offices are at 13220 S.W. 208 St., Miami, FL 33177; 305/232-5958; fax, 305/235-4513...The Michigan Nursery and Landscape Association's Great Lakes Trade Exposition will be Jan. 10-12 at the Amway Grand Plaza Hotel and Grand Center in Grand Rapids, Mich. Call 517/487-1282 for information. ■

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"Every man owes a part of his time and money to the business or industry in which he is engaged. No man has a moral right to withhold his support from an organization that is striving to improve conditions within his sphere." President Theodore Roosevelt, 1908.

WHEN WE began our endeavor to uncover the most powerful people in the professional lawn and landscape industry, we knew it would be far from an easy task. Not only is powerful hard to define, but the base from which that influence emanates constantly fluctuates.

Some of the most influential people in the lawn and landscape industry have achieved recognition by being bold and brash. Others have taken a more subtle approach by being consensus builders and maintaining unassuming postures. Whatever their approach, the green industry is full of individuals who, for one reason or another, have chosen to give of themselves to make the industry — and the environment — a better place to run a business. Their efforts as a whole have also helped to create a legitimate business atmosphere in which the fruits of the industry's labor can be admired and respected.

But what is power? Who has it? How did they get it? These questions are subjective, calling on personal judgment and assessment. Power, as defined by Webster's dictionary, means possession of control, authority or influence over others; as well as the ability to act or produce an effect.

Based on this definition, nearly everyone has an inherent ability to be powerful, but only those who choose to pursue it achieve a powerful stature. Curiously, as we gathered information for this article, we received more than one request to re-think our "most powerful people in the lawn and landscape industry" position, instead viewing our selections as industry leaders, influential people, trendsetters, most respected,

forceful, successful...the list goes on and on.

Taking that into consideration, it can be said that both leadership and power stem from people who successfully rally associates and employees. And that is something good leaders do. As leaders, business people must be both coaches and cheerleaders, bringing the troops together for a common goal. Real leaders, those who make a difference, promote the big picture.

Kenneth Blanchard, co-author

of *The One Minute Manager*, believes that leaders have two basic roles in business: vision and implementation. "In the visionary role, leaders are the definers of direction," Blanchard said.

Unless there is a common goal, people, including the leadership, focus on the problems. Subsequently, it's generally not people problems you're dealing with, it's people's problems that create management nightmares. In fact, shared vision is the number one behavior

commitment mentioned in any number of best selling leadership books. In other words, they share their dream, their goal.

The concept was not lost on renowned businessman Sam Walton, the late founder of Wal-Mart Stores Inc. He took a failing five and dime store in Arkansas in 1945 and turned it into the number one retail business in the world with sales of \$44 billion in 1991. He did this based on a simple but strongly held philosophy: low



Guardians

of the Environment

Influencing the professional contractor market is often an arduous task. But for those who strive to make a difference, the green industry has reaped the benefits.

By Cindy Code

overhead, high value and total commitment to the customer.

Research has revealed that leaders like Walton enlist others to share in the vision. The ability to enlist others and lead a successful team is a critical factor if a business wants to grow and be profitable.

And vision isn't limited to employer/employee relationships. Vision should stretch to customers—real and potential. Customers should not be overlooked in the scheme of leadership and power. If not for

customers then all your work goes for naught.

Whatever you want to call it—power, influence, leadership—the people listed below are those who have made events happen in the green industry. Some have earned the reputation as leaders by assuming the presidency of a national association, others have become key players through the political process and some have contributed through innovative ideas such as total quality management, training

courses and the promotion of professionalism.

Directing these tactics and concepts among people in a relatively mature industry may seem repetitious, but not to those who have taken the responsibility of the industry's growth into their own hands. Fortunately or not, key concepts and seemingly trivial matters must be continuously reviewed until they become second nature to the entire green industry including those representing big and small companies; those catering to lawn care, landscaping, irrigation, grounds management and nursery specialties; and those who have successfully hurdled the constant barriers to offer their customers a complete line of services.

In addition to profitably operating a business, raising a family and enjoying valuable recreation time, who has time to devote to the success of industry associations, professionalism and general industry development? Figure that out, and then ask, why do they give so much of their time?

Fortunately, the green industry is blessed with plenty of individuals who have found a calling to cultivate the profession. Like Ron Kujawa who has lived by the words of Theodore Roosevelt.

"I saw that quote (above) 25 years ago and I've tried to live by it," said Kujawa, president of Kujawa Enterprises, Cudahy, Wis. "Those who join and don't participate do themselves a terrible disservice. Some say you get out what you put in, but I think I get much more than I ever put into it."

Or Bob Andrews who, as a small

business owner, gets a lot of personal satisfaction from the interaction gained by being involved with those who want to make a difference.

"Being a leader takes a willingness to understand other peoples' points of view," he said. "We're involved in an industry that's so different from top to bottom in terms of size, it takes a lot of give and take."

Payback is important, but Gary Thornton, president of Thornton Gardens, said it goes deeper.

"I think it stems from a fairly deep-seeded love for the industry," he said. "We like to see it prosper. And I'm sure there's a little bit of ego involved to see how far you can go."

And what's good for the industry is good for the individual companies whose representatives are working hard to strengthen the industry.

"A strong industry is good for Barefoot Grass and other companies, large and small," said Patrick Norton, president of Barefoot Grass. "We're very concerned with how regulations affect any size operation because it's the right thing to do. We can't have enough good competitors."

It's interesting, too, to see the two industry guards, if you will, whose names appear on the lists. The names consist of those responsible for establishing the industry, getting it off the ground and surviving the changing times, as well as the up and coming contractors who bring fresh perspective to decade-old problems and, in general, inspire a mutual respect and admiration for the efforts of one another.

We'd like to thank all of those who participated in our first annual

"Who's Who." In an industry as dynamic as ours, it will be interesting to see this story change and develop in future years.

Without further ado, here are the leaders who have significantly shaped the green industry. While leaders come in varying degrees, we had to make some decisions based on interviews and responses to our survey. We regret that our space prohibits us from mentioning everyone who has made a contribution to the green industry.

The names are divided into main groups of landscape/grounds management/irrigation, lawn maintenance and other related categories. The names are listed in alphabetical order.

Names not found below, but just as visible in the leadership arena are university researchers and national association executives — Debra Atkins, ALCA; Ann McClure, PLCAA; Charles "Pepper" Putnam, IA; Robert Dolibois, AAN; John Gillan, PGMS—and industry suppliers and their distributors who have contributed overwhelmingly to the green industry.

LANDSCAPE/ GROUNDS MANAGEMENT/IRRIGATION

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Tigard, Ore.

ROD BAILEY
Evergreen Services
Bellevue, Wash.

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AND BRUCE HUNT**
The Brickman Group Ltd.
Long Grove, Ill.

**CLARENCE
AND BILL DAVIDS**
Clarence Davids & Co.
Blue Island, Ill.

BOB DOBSON
Middleton Sprinkler Co.
Port Monmouth, N.J.

TOM GARBER
Colorado Landscape Enterprises
Westminster, Colo.

ALLEN KEESEN
Allen Keesen Landscape
Denver, Colo.

RON KUJAWA
Kujawa Enterprises
Cudahy, Wis.

TOM LIED
Lied's Nursery Co.
Sussex, Wis.

JOHN MILCHALKO
Case Western Reserve University
Cleveland, Ohio

DAVID MINOR
Minor's Inc.
Fort Worth, Texas

LANDON REEVE
Chapel Valley Landscape
Woodbine, Md.

MELANIE REINHOLD
Reinhold & Vidosh
(formerly)
Pontiac, Mich.

BURTON SPERBER
Environmental Industries
Calabasas, Calif.

**GARY
AND BILL THORNTON**
Thornton Gardens
Maineville, Ohio

BRUCE WILSON
Environmental Care
Calabasas, Calif.

VISIBLE PLAYERS. There are a number of distinguished leaders in the landscape/grounds management sector of the green industry. All of these folks are active players in state and national trade associations as well as related business

groups such as homeowner associations, real estate and development organizations among others.

Some interesting highlights include: Brothers Gary and Bill Thornton — two of the best business minds in the industry. Gary is

the current president of ALCA and Bill served as ALCA president in 1979. Together they run Thornton Gardens, a firm representing landscape, maintenance, construction, retail and nursery services. Both are

(continued on page 26)

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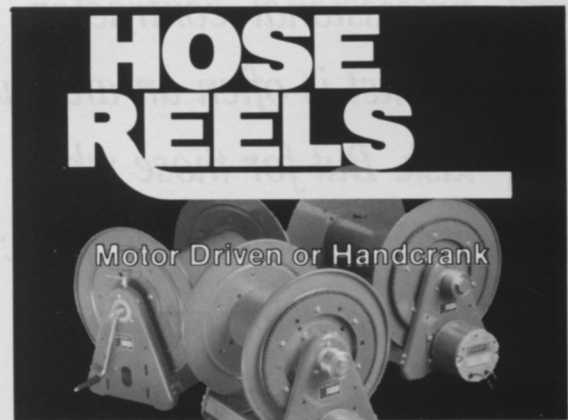
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Cover Story

(continued from page 24)

effective communicators and Gary was instrumental in the development of ALCA's certified landscape contractor exam.

Tom Lied is chairman of ALCA's Crystal Ball committee and is integral to the evolution of the landscape industry through his insightful reports. He was there when ALCA got off the ground 30 years ago, and Lied has remained an industry force ever since.

Melanie Reinhold, although no longer actively involved in the landscape industry, made her contributions as a savvy businesswoman and president of what was the second largest landscaping company in the United States. Although Reinhold & Vidosh is no longer a business entity, the fruits of her labor still exist in Reinhold & St. John in Memphis, run by Drew St. John and Reinhold Landscape in Orlando, run by Gary Outlaw.

Burton Sperber, an icon in the green industry, was the founder of the largest, most successful land-

scape organization in the United States. A hard-working, unassuming man, Sperber recruited and fervently backed the likes of Bruce Wilson and Bob Scofield and created a truly diversified, national

The ability to enlist others and lead a successful team in pursuing a shared company vision is a critical factor if a business wants to grow, develop and be profitable.

firm. Wilson, president of Environmental Care, represents one of the most emulated companies in the industry. Together with Scofield, his right hand man, the two encour-

age free thinking at individual branch offices.

If you want to know about profitably running a business—or any business related situation for that matter—go see David Minor. He's a favorite at industry conferences and an up-front businessman.

Tom Garber is known in the landscape industry for his vision. He was a primary negotiator of the current Green Industry Expo contract. His tireless efforts helped secure the relationship between the three sponsoring associations. He was also the mastermind behind ALCA's wildly successful Executive Forum.

Dick Brickman, ALCA president in 1977, and Bruce Hunt, ALCA president in 1988, are well known and respected for their organizational development and quality of service to the landscape industry.

If customer service and keeping your employees happy is important to you, just listen to one of Rich Akerman's talks. Not only are they informational, they're fun. He really enjoys people and understands

the complexities of the service industry. He's the incoming president for ALCA.

The father/son team of Clarence and Bill Davids has been a constant in the landscape industry, creating a tradition of management excellence and training generations of contractors.

MOVERS AND SHAKERS. The lawn service industry has seen its share of changes over the years. From the highs and lows of individual and joint ChemLawn and TruGreen efforts to the innate franchise capabilities of lawn care to the cross-over in service offerings, the lawn service industry has an interesting history of movers and shakers and legislative turmoil.

Jerry Faulring, one of the founders and the first president of the Professional Lawn Care Association of America, built a comfortable lawn care company, branched out, sold his branches and diversified into the nursery market. Along the way he followed the strength of his convictions and was a role model for developing service firms.

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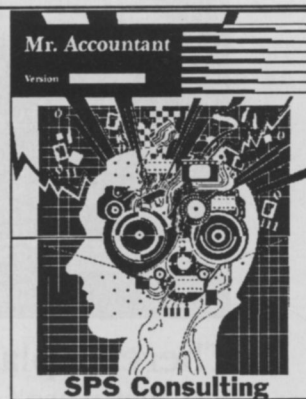
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LOU WIERICHS

Pro-X Systems
Appleton, Wis.

Patrick Norton, a former accountant, is now earning his living as the president of the second largest lawn care company in the United States. He hit the streets running when charged with taking Barefoot public, and he's said to have the right combination of industry understanding, brains and power to do something with it.

Norman Goldenberg, as director of government affairs for TruGreen/ChemLawn, the largest company in the industry — and an expert communicator — exerts in-

fluence on regulatory matters, taking a hands-on approach to shaping the future of the lawn care industry. His uncanny ability to lobby politicians and unite peers makes him an integral part of any team.

Bob Andrews, instrumental in the long-term success of Green Industry Expo negotiations, former PLCAA president and founder of the Indiana State Lawn Care Association, wouldn't know what to do without a challenge to tackle. Representing a typical small business, Andrews is anything but typical.

Like Andrews, Neal DeAngelo got his start at the local and state level. He's an association man, but is not afraid to tell it like it is. As president of PLCAA he was important to its recent reorganization efforts.

Don Karnes, president of the new TruGreen/ChemLawn, not particularly visible at industry functions but aggressive just the same, prefers to work behind the scenes of this mammoth service company.

Tom Deiderich, like Goldenberg, is not afraid to tell it like it is. He's

well-known in Washington circles and he personifies the ideals of the lawn maintenance industry.

Well liked and influential, Marty Erbaugh was one of the early leaders of PLCAA. His aggressive strategies have grown his business throughout the Northeast, with the largest percentage of work in New York (not always an easy state to do business in.) He was an early proponent of customer contracts.

Lou Wierichs and Phil Fogarty are two ambitious, talented businessmen. Each is active locally, both enjoy spreading the word about the benefits of pesticides through public speaking and Fogarty's radio show. Wierichs is incoming president of PLCAA, and Fogarty was one of the founders and first president of the Ohio Lawn Care Association.

Russell Frith built a franchise operation which continues to gain recognition as one of the most successful franchises in the United States. He's active in fund-raising for the PLCAA.

John Robinson was the first

(continued on page 90)

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Green Industry Expo... What Does the Future Hold?

THE GREEN Industry Exposition continues to grow.

That fact in itself is truly unremarkable. What is outstanding, however, is the somewhat rocky road which led to the fourth annual GIE show and conferences, filled with potholes and quagmired with tricky curves and fork roads.

And monumental, too, is the determination and dedication of the three founding associations — the Associated Landscape Contractors of America, the Professional Lawn Care Association of America and the Professional Grounds Management Society — to dodge potential land mines to achieve success.

Had anyone organizing the show

*Overcoming
stormy conflicts in its
formative years, the
fourth annual GIE
show represents a
remarkable
communion of three
national
associations.*

By Cathy Hoehn

three years ago been asked whether it would even exist today, the answer would have been far from encouraging.

"I remember meetings where one group hardly had a civil word for the other. That's long gone," said Bob Andrews, former president of PLCAA. "I think that's a function of the new leaders. They've got new people involved in it now. They simply don't have the history to look back at."

Indeed, the 12 GIE board members — three representatives from each of the three associations, plus the executive directors — appear dedicated to working together for a common cause.

"The neat thing that has happened in the past few years, PLCAA's staff and ALCA's staff — namely Ann McClure and Debra Atkins — have developed fine working relationships and that really helps a lot," said Tom Garber, former president of ALCA and a former board member who was instrumental in ironing out the current contract between the three associations. "The whole key to this is mutual respect."

New players like John Gillan, acting executive director for PGMS (until one is appointed this month), brings added dimensions to the board's efforts. Gillan, with a strong marketing background, is working to broaden PGMS' membership base, which could further enhance its ability to contribute to GIE.

Earnest and forthright, Gillan believes he brings productivity to PGMS and GIE. "The other associations aren't as lean; they have more people to do the same jobs. As executive director of PGMS, I'm chief cook and bottle washer. That's not a bad thing. It means I have to produce, but I also have control of what we're doing."

Show organizers concede it's not always easy to combine efforts of three distinctly different groups.

"The three organizations have similar goals but retain their separate identities," said Ann McClure,

ALCA and PGMS join forces to hold the first Green Team show. PLCAA continues to hold its own show.

1986

FALL
1989

ALCA, PGMS and PLCAA form GIE Inc. The associations sign a two-year contract establishing PLCAA as show manager.

PLCAA, PGMS and ALCA renegotiate contract, extending PLCAA's management term to 1994.

MAY
1991

1988

Talks begin in earnest for the three associations to combine trade shows. Dave Fuller, former director of PLCAA, meets with Ron Kujawa of ALCA and Earl Wilson from PGMS at the third Green Team conference in Orlando.

NOVEMBER
1990

First GIE show is held in Nashville, featuring 256 exhibitors and more than 2,000 attendees. More than 53,000 net square feet of floor space is sold. ALCA and PGMS offer a combined educational track.

show manager and executive vice president of PLCAA. "Every time you think up a new project, you have to think how to do it best in light of those two factors. I think we've done famously. We've had plenty of opportunities to have pro and con discussions. But we always bring things right out in the open...If we didn't have differences, we wouldn't have separate associations."

"Being members of that board, we have to wear two hats," said Steve Glover of L&L Landscape Services, Santa Clara, Calif. "We have to wear the hat of our organization that we represent. And we also wear the hat of the GIE board. Sometimes we have to choose the side of GIE over our own organization, to a certain extent, to create common good for the exposition. We're all discovering how that process works relating to our own organizations."

The GIE thus far has experienced gradual growth. Attendance is building, and industry representatives are starting to recognize the show as a major entity. Additionally, each year sees increased cooperation and comfort between the founding associations. At a time when things in many ways are just coming together for GIE planners, a few sensitive issues recently brought to surface need to be handled delicately to avoid severing freshly cultivated ties.

ROADBLOCK. A recurring issue since the GIE's inception has been whether or not PLCAA should retain management of the show when its contract expires next year.

The issue comes to a head this month, since the board has contacted some 20 different outside show management groups to see what kind of interest they can stir. The board is looking at three options: keeping PLCAA intact as show managers, hiring an outside management firm, or hiring someone full-time, such as an executive director, that would work exclusively for GIE.

The issue brewed a bit of controversy at the GIE board's strategic planning meeting in September, though discussions remained controlled. "Nobody wants to step on anybody's feet, especially going into negotiations," said Lou Wierichs, president-elect for PLCAA and GIE board member. But he concedes the issue strained diplomatic relations slightly. Jim



out there," Glover said. PLCAA representatives on the board firmly believe the association should retain its management rights, since over the years it has established rapport with vendors, potential convention sites and the show decorator.

McClure agreed it's "healthy" to look at what the competition can provide, but remains optimistic that PLCAA will retain its management role.

"We've already made it clear that PLCAA very much wants to continue management," she said. "There's nobody more interested in the success of the entity than one of the partners. We

feel that it would be very unusual to be able to hire someone outside that could end up making it any more successful financially."

Garber raised the concern that PLCAA may be carrying too much on its plate.

"At a time when I think the membership of all three organizations is requiring a lot more devotion from the paid staff to commit the time

Perrone, a professional strategist hired last year to attempt to solidify the GIE show's future, has been key in resolving or thwarting such disputes during meetings.

Most board members applaud PLCAA's track record in managing the show and maintain that the move to solicit outside bids is only to "investigate to see what else is

SEPTEMBER 1992

Professional strategist Jim Perrone is hired to attempt to solidify the future of the GIE show.

Fourth GIE show is being held in Baltimore, Md. Between 2,500 and 3,000 attendees are expected. The show sold out with about 260 exhibitors and more than 53,000 net square feet of space sold. PGMS, PLCAA and ALCA synchronize educational sessions as closely as possible to avoid overlap. Efforts begin to determine if PLCAA will continue as show manager, or if it will go to an outside contractor.

NOVEMBER 1993

NOVEMBER 1991

Second GIE show, held in Tampa, Fla., hosts 292 exhibitors and not quite 2,000 attendees. More than 55,800 net square feet of exhibit space was sold.

Third GIE show is held in Indianapolis, Ind., attended by almost 2,300. About 255 exhibitors filled about 49,400 net square feet of floor space. ALCA, PGMS and PLCAA share a keynote speaker for the first time. Each offers separate educational sessions, but opens each session to members of all three associations.

NOVEMBER 1992

NOVEMBER 1994

Fifth GIE show is set for St. Louis, Mo.

required to run a trade show that size, I think it needs to be a very carefully thought out decision," he said. "I think if there is a subcontractor who can bring in the revenue of the groups without (the groups) having to commit all their staff time to it, then it should happen."

Management plans must be solidified by June 31, 1994. PLCAA will submit a proposal to the board, along with other companies targeted as potential bidders. Negotiations start right after the board's Nov. 18 meeting in Baltimore.

FUTURE HORIZONS. A probability exists that, down the road, the GIE planners will invite other associations to participate in the show and conferences, possibly as partners.

A number of associations are being informally considered, though no invitations are pending. Such an addition wouldn't likely happen "for a few years," said Rick Doesburg of Thornton Gardens in Maineville, Ohio, and an ALCA representative on the GIE board.

High on ALCA's list of potential invitees is the National Landscape Association, the landscaping branch of the American Association of Nurserymen.

'We've made it clear PLCAA wants to continue management. There's nobody more interested in the success of the entity than one of the partners.'

"Certainly if there was any way NLA could come in on it, that would be the real coup, because then you would suddenly find a lot more interest from suppliers," Garber said. "Right now, and I'm speaking in gross generalizations, the GIE has no problem convincing fertil-

izer people to be there, or pesticide people to be there or mower people to be there. But all the people that produce goods that go into landscape installations, such as the hard goods, lighting, cement and nurseries especially, have been reluctant to come in on this because they see it as too oriented to lawn care applicators."

Doesburg agreed the NLA could contribute greatly to the show, but said "politics and time conflicts" between the two organizations' shows would prevent NLA from joining in the near future. Any association representing an aspect of the lawn and landscape industry, including the American Society of Landscape Architects, could be considered, he said.

"We (ALCA) would be very interested in several associations in the industry because of the diversity of our members, said Debra Atkins, executive director of ALCA.

Atkins did not dismiss the possibility that AAN would at some point consider joining the show. "Who knows what the future will hold?"

she said. "They made a dramatic change to coordinating its show with various regional trade shows...I think all associations really have their eyes open now and are aware of the need for looking at 'what if?' What would be best for the industry they represent. So I think we'll see more and more changes that will be positive."

McClure pointed out that adding partners would take judicious planning since GIE is incorporated. "It's set up so that the three sponsoring organizations are shareholders. "Therefore, if such a time comes that we involved other organizations as shareholders, we would have to revise the whole legal entity," she said. "It certainly could be done but it wouldn't be done frivolously. If you're going to go through all those gyrations, you want to be sure it's a match made in heaven."

HERE AND NOW. The board's current focus is on attracting additional vendors and attendees to future shows.

An Industry Advisory Council will be formed in the next few

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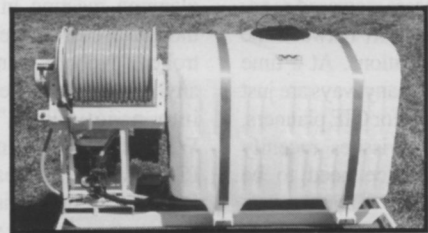
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months, made up of 12 to 15 companies covering a broad spectrum of the green industry. The companies, selected from those exhibiting at the GIE, will serve as a sounding board on matters vital to growing the show, such as tailoring hours to maximize attendance. Under consideration is eliminating the Sneak Preview, which was introduced last year, moving the keynote address and reception to Tuesday and holding a full day of educational sessions on Monday. The board is also debating eliminating service workshops.

Other efforts include boosting advertising and promotion in key markets, such as irrigation (the number of irrigation exhibitors is up this year) and nursery. ALCA has begun contacting regional associations in areas of future shows, such as St. Louis and Fort Worth, Texas, to solicit aid in targeting prospective attendees.

Board members also plan to talk to attendees and exhibitors in Baltimore to discern what draws them to GIE and what improvements they saw for future shows.

All in all, board and association members are fairly pleased with GIE's progress.

"I think we're doing a great service to the industry. Attendees are increasingly diversified... Instead of two or three national shows, they can go to one and get a real taste of what's in the market," Andrews said.

"I think locations for shows are wisely chosen. They're moving it around the country, kind of exposing GIE to a wider audience. I sense that the exhibitors are happy and the fact that we're sold out this year says that is correct. A lot of shows around the country right now are not doing very well. They're having a fairly difficult time drawing exhibitors."

FUTURE GROWTH. Everyone agrees the GIE show will grow. At what rate is the key question.

"I think it's going to grow gradually," Andrews said. "I think we need to just keep our eye on the ball and keep growing a little bit each year, diversifying exhibitors each year, drawing a crowd. But to say

the show will double in size or grow half again in five years, I think that's a pipe dream. Right now, we're obviously in a position exhibitors are comfortable with. I think for the most part, the three associations are fairly comfortable."

Andrews believes that rapid growth could be detrimental.

"I'm not sure we'd be able to control it, maintain the quality of it. Or we would end up finding ourselves losing respect from people who attend simply because we're trying to do too many things. You've also got the challenge that there are a lot of very good regional shows around the country. If you're going to radically grow, you're going to have to take that from someone else and I don't see that happening. We just need to continue on the way we're going."

A lot of factors play into the scheme for future planning, according to McClure. "Where the show is right now was in part influenced by the economy in the United States the last two years. It also has to do with the condition of industries represented at the show. So where those

industries are has great influence on where the show will go.

"It's going to grow. There's no doubt. You can see that beginning to happen now that the economy is strengthening. We sold out what we've got. We need an even bigger convention hall next time. I anticipate that we will be at 60,000 net square feet (of exhibit space) next year."

Gillan and Earl Wells, a PGMS member, anticipate the show will sell 72,000 square feet of floor space in five years. "I think with slow, steady growth we can achieve that," Gillan said.

Where will the show be in five years overall? "You'll see it growing bigger every year," Glover said. "That's the whole goal of the show — that's what GIE is all about. So in five years, it will be bigger. We're looking at expanding floor space in St. Louis to more than what we sold in Baltimore. That is our hope and plan."

The author is Associate Editor of Lawn & Landscape Maintenance magazine.

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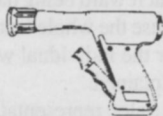
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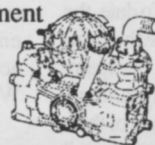


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USE READER SERVICE #54

Going the Extra Mile

INCREASINGLY, COMPANIES are learning the direct correlation between employee recognition for a job well done and a fattened bottom line. But keeping employees motivated and prepared to go the extra mile for a company can be a challenge. Employees need to know that their extra efforts have been recognized by both peers and management.

Despite the increased productivity, improved morale and other benefits that accrue from rewarding outstanding employees, some companies still don't officially recognize those who achieve, said Paul Skorupa, a lawn maintenance consultant and owner of The Precision Group, Exeter, R.I.

"What you'll find at most companies is that there's no real concrete system in place," Skorupa said. "It's usually at the whim of the owner or manager."

For those companies that do recognize good work, Skorupa urged caution, especially when measuring achievements based upon sales or production goals alone.

"Just because an employee is bringing in a lot of money doesn't mean he's good at customer service," Skorupa said. "Customer service can make or break a company today, but it's difficult to gauge. Now sales goals — that's an easy one to measure. But there are pitfalls to using sales goals as an incentive or recognition. The individual making the sale may build up unrealistic expectations with the customer just to get the sale."

For the most fair approach, Skorupa advocated a system of employee recognition that strikes a

Lawn and landscape maintenance firms are proving that employee recognition programs — not just money — encourage overachievement and ultimately, greater profits.

By Julie A. Evans

balance between sales, production and customer service. "If I were developing a compensation system, those are the criteria I would use," he said.

Some companies, such as Lawn Care Specialists in La Crosse, Wis., supplement awards for meeting sales and production quotas — in this instance, \$100 for every 100 sales — with a less tangible recognition strategy: seeking employee input for management decisions. Lawn Care Specialists President Joe Bilskemper established an employee council whose task is to advise him on policy matters and management practices. To date, the council has helped rewrite the company manual, establish company rules and devise company outings.

"They're very protective of their council and who they let sit on it," Bilskemper said. "We want to have people on the council who have been with us a long time."

Lawn & Landscape Maintenance magazine queried several

other lawn care and landscape maintenance and construction firms to learn how companies recognize their over-achieving employees. Although executives at a few companies acknowledged that they did not have a formal program in place, the majority use some type of awards recognition and other incentives to keep workers motivated.

CAGWIN & DORWARD. Within the past three years, Cagwin & Dorward Landscape Contractors, a landscape maintenance and construction firm in Novato, Calif., has stepped up its efforts in employee recognition and has noticed greater enthusiasm in the workplace, according to CEO and co-owner Wayne Richards.

"Maybe in the past we had a tendency to take things for granted," Richards said. "We like to recognize employees for a number of things — for receiving positive comments from customers, for positive communications, for doing

quality work. It's all part of our total quality program."

According to Richards, peer approval for a job well done is perhaps the most important element of Cagwin & Dorward's approach to employee recognition.

"We promote individual daily recognition," he said. "We believe people want to do a good job, and I think all of us want to know how we're doing. You don't have to have a lot of meetings to tell people they're doing good work. Often it's a team member saying 'thanks for helping me out' that encourages people most."

To reinforce the peer approval approach, the company recognizes its outstanding employees each year through an employee-nominated awards program. Criteria upon which employees are asked to evaluate other employees includes special efforts in customer satisfaction, outstanding performance in training programs, setting a positive example for other employees and idea sharing.

Richards said employees seem to find the awards program more meaningful when their peers make the nominations. "It's great to see that reward being handed out because the whole team is cheering for the individual who won," he explained.

Sales representatives are recognized for their achievements on a monthly basis and receive incentive bonuses and certificates. Sales success is easily measured by the number of written proposals, amount of sales and number of renewals among other things, Richards said.

LAWNMARK. Lawnmark, a lawn care firm headquartered in Hudson, Ohio, has adopted a two-tier approach to employee recognition. On the first level, each of the company's seven branch managers receives an annual budget of approximately \$2,000 to use for individual or group recognition programs or for motivational purposes. Typical uses include cash gifts, gift certificates and movie and football tickets.

The company also awards prizes to sales and production staff who meet certain quotas established in advance by the company. These incentives range from coolers and canvas gym bags from L.L. Bean; to the top prize, a trip for two to the Rose Bowl at Pasadena.

In between are a number of attractive incentives, including a trip for four to Las Vegas, a weekend getaway at the Marriott and a trip to Disneyland.

According to Vice President Terry Prem, employees receive their awards as they reach each quota. That adds to the program's appeal, he said. Progress reports are posted weekly in the operations office, and incentives are always posted so employees know at all times which award they aim for next.

To devise a more equitable system, the company recently added a program to recognize office staff for their accounts receivables. The branch with the lowest percent of accounts receivable receives a prize at month end; and the branch with the best record at year end earns a weekend getaway.

According to Prem, the recognition program definitely helps boost productivity and employee morale. "It's definitely a big plus for the company," he said. "At year end, they work harder as they get closer

to certain incentives."

Employee recognition programs for branch managers are based on overachievement in three areas: exceeding profit expectations, controlling costs and getting the work done. The company also selects overachievers to participate in its employee stock program.

Prem added that the company also provides non-materialistic incentives. Individuals who reach their quotas receive a letter from the

corporate office, for example.

ENVIRONMENTAL CARE. Incentive programs at Environmental Care Industries, headquartered in Calabasas, Calif., "encourage managers to focus on areas that lead to success in business," said Pam Stark, corporate vice president.

ECI uses several strategies to recognize employees who excel.

For starters, the company allots a dollar pool to each of the company's 20 branches. Individual branches then design their own incentive programs based upon quality of work,

efficiency, safety and customer service, Stark said. The programs are for all employees and are awarded by crew.

In addition, branches compete for the coveted President's Award, presented at year end. Each branch is evaluated on criteria for success set by President Bruce Wilson. Those include quality of work, employee development, efficiency, equipment sales growth, profitability and receivables. Each branch scores points based upon its performance in relation to other branches. The branch with the highest points at year end receives the award.

According to Stark, the success of awards programs are difficult to measure, but the strategy appears to work well for the company. "I guess because our business has been fairly successful over the years — yes, you could say they're effective," Stark said.

NORTHWEST LANDSCAPE IND.

When Northwest Landscape Industries, Tigard, Ore., wants to do something special for its over-achieving employees, it just might dig into its "motivation budget" and dole out a weekend at the beach or a white water rafting expedition, said Brandt Vroman, branch manager.

According to Vroman, recognition for quality work goes a long way in encouraging employee contributions to the company. "I don't want to sound cliché, but employees are our biggest asset and we want to take care of our best asset any way we can," he said.

The company uses an array of incentive and recognition strategies. One ongoing initiative is the Breakfast of Champions program. Every month, management selects one employee from each of four areas of the company to have breakfast with a partner. They meet and discuss strategies for improving company relations, productivity and other aspects of their jobs.

Northwest Landscape Industries also selects an employee of the

(continued on page 36)



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USE READER SERVICE #20

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WHO ARE THE PEAK PERFORMERS?

ACCORDING TO Charles Garfield, Ph.D. author of *Peak Performers: The New Heroes of American Business*, most people are average, not because they choose to be, but because they're never offered the chance to be otherwise. Garfield also contends that most companies don't invest enough time seeking peak performers, which he defines as those people dedicated to improving how their companies do business, regardless of job title or responsibilities.

Garfield offers the following checklist of qualities shared by peak performers, and recommends keeping them in mind at hiring time.

- A sense of mission
- Ability to plan strategically, both for their own careers and for projects
- Courage to take risks in the pursuit of excellence
- High self-confidence and self-worth



- Need for responsibility and control
- Ownership of their own good ideas
- Ability to prepare mentally for key situations
- Good time-management skills
- Ability to learn from past mistakes
- Faith in their own creativity, even when other people don't understand their contributions
- Positive work environment, even

if they have to make it this way themselves

- Concern for other people, allowing them to work well with them
- Decisiveness in the face of opportunity
- Foresight to anticipate difficulties and opportunities
- Need to check on themselves frequently to see whether they're on course
- A thirst for new knowledge and experiences

Source: Personnel Journal

Going the Extra Mile

(continued from page 33)

month, who receives \$25 and gets his or her name on a company plaque. On a quarterly basis, the company awards \$150 to an outstanding crew leader.

Other successful motivators include: silver dollars for each year an employee works at the company; watches for five- or 10-year anniversaries; a Northwest Landscape Industries jacket for 10-year anniversaries; a Wall of Fame, where letters from satisfied customers are

posted; a Christmas party where individual accomplishments are highlighted; and for longer-term benefits, a 401K investment program.

Another motivating force for employees, Vroman said, is that requirements for job promotion are

well mapped out. "That's an incentive for a lot of employees, that they can see how to get from point A to point B," he said. ■

The author is a Contributing Editor to Lawn & Landscape Maintenance magazine.

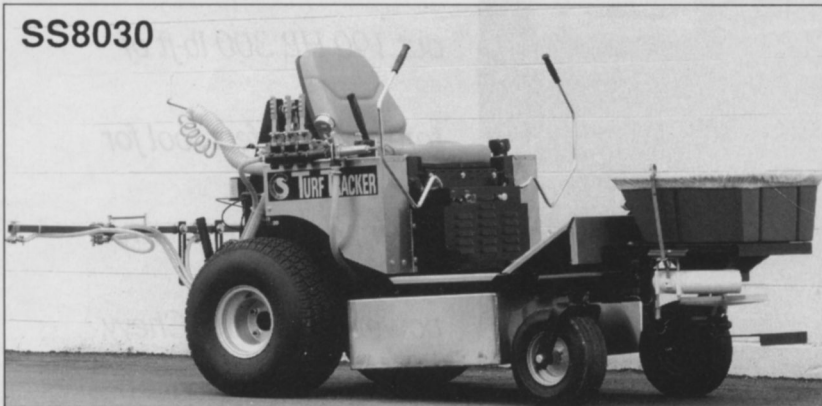


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USE READER SERVICE #63

PESTICIDES IN THE URBAN ENVIRONMENT

PART 1

The Plain Facts

The risks and benefits of pesticides have been well researched, providing both applicators and the general public responses to their queries.

By David Shetlar

Ed. Note: Education, without question, is the number one issue surrounding the proper application of specialty pesticides. Onerous legislation at the federal, state and local levels; licensing and certification considerations; dealing with unscrupulous media reports; and answering homeowner questions in an intelligent yet understandable level are all legitimate concerns. These areas can and should be addressed through education.

Although these matters are addressed monthly on the pages of Lawn & Landscape Maintenance, we're making the commitment to take it one step further. Beginning with this issue, we will offer a monthly column on "Using Pesticides in the Urban Environment."



PESTICIDES IN THE URBAN ENVIRONMENT

This series will address vital issues integral to the success of lawn and landscape professionals. From both a business and technical perspective, these dual-educational articles will provide an in-depth look at issues shaping the environment and the green industry, as well as provide critical perspective to the relationship between lawn service companies and their customers.

This month, David Shetlar discusses the importance of effectively communicating the benefits of specialty pesticides to customers, peers and legislators through logic and available scientific data.

TRYING TO DISCUSS the benefits of using specialty pesticides will never be acceptable to a very active, highly vocal segment of our society. So, in essence, we must understand that this group has accepted the "belief" that "all pesticides are bad."

Nothing can be said to change this notion. Trying to change this particular belief will place you in the same position as trying to convince a born-again Christian that there is no Christ or a pro-life advocate that abortion should be a free choice.

Human Poisonings

Cause	Number	%
1. Analgesics	143,450	10.5
2. Cleaning Agents	137,240	10.0
3. Cosmetics	110,240	8.1
4. Plants	93,975	6.9
5. Cough/Cold Medicines	58,170	5.6
6. Pesticides	76,566	4.2
7. Hydrocarbons	52,454	3.8
8. Topical Medicines	49,630	3.6
9. Bites/Stings	47,829	3.5
10. Foreign Bodies	47,374	3.5

Source: The American Association of Poison Control Centers, 1988

discuss the information we provide. This is the segment of our industry with whom we must be thoroughly ready to discuss the issues and provide factually correct, scientifically researched information.

NO, NOs. There are statements which must be avoided at all costs. Do not say that applications or

programs are "perfectly safe." Even if organic materials are being used. In essence, legally, nothing is completely safe. Learn to avoid the word safe.

Fortunately, as with religious fundamentalists, the highly active, anti-pesticide group is small in comparison to the general population. Industry surveys indicate that only 10 percent to 20 percent of our citizens have any real concern about pesticides or toxins. On the other end of the scale, an alarming 10 percent to 20 percent have absolutely no interest in environmental or health issues.

The vast majority of our clients, however, have some interest in environmental issues and, more importantly, are still willing to listen to and

discuss the information we provide. This is the segment of our industry with whom we must be thoroughly ready to discuss the issues and provide factually correct, scientifically researched information.

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RISKS AND BENEFITS. Two major issues worth some study time are risks and benefits. Risk is one of the most difficult issues to understand because it generally involves mathematical models (environmental and risk assessment models), statistics and estimates.

Though the use of mathematics should be precise, developing models and making estimates can appear to be imprecise. One person may think that setting a risk estimate at one in a million seems low, while another person may feel it is unacceptably high. Some people want absolutely no risk.

Another problem with risk statistics is that the numbers are extremely small. Changes in small numbers can result in dramatic, and often false, conclusions. Let's assume that last year 10 people died from pesticide exposure, and this year 20 people died. The newspaper headlines will read: "Twice as Many Deaths Due to Pesticides," "100 percent More Deaths Occurred This Year" or "Pesticide Deaths Double."



The reality is that 10 out of 300,000,000 (0.00003 percent) compared to 20 out of 300,000,000 (0.00006 percent) is a small enough probability that the change in deaths could be by chance alone, not some sinister puzzle.

Let's look at the actual risks of using pesticides. In 1988, the American Association of Poison Control Centers reported that they were contacted 1,368,748 times for information on all kinds of pesticide exposure. Of these contacts, 545 cases resulted in deaths (0.033 percent). Of those 545, 14 deaths (0.001 percent of the total reported contacts and 2.5 percent of the deaths) were due to pesticide exposure.

Worth mentioning is that the APCC stated that almost 80 percent of the pesticide deaths were due to deliberate suicide attempts, not accidental exposure. Certain extremists lead the public to believe that tens of thousands of Americans are dying of pesticide exposure each year. The statistics simply do not support this premise.

To provide a comparison, *Men's Health* magazine (April 1992) published a report on the number of deaths caused by animals in the United States in 1989. The article estimated that about 200 deaths are caused by human/animal interactions each year. Interestingly, the number of deaths from dog attacks equals the number of deaths from pesticide exposure reported in 1988 by APCC.

If one were to draw unfounded conclusions from this report then dogs, bees and deer should be eliminated before worrying about banning pesticides. That's extreme, but we can conclude that the risk of dying because of a deer crash or bee sting is much greater than dying from pesticide exposure.

But death isn't the only anxiety where pesticides are concerned. Many feel that the risks associated with pesticides are directly related to various side effects or illnesses such as cancer. While it is true that certain chemicals, disease organisms and radiation exposure can be labeled as cancer-causing (carcinogenic), there are, again, too many shades of gray to make a blanket statement.

In fact, the vast majority of carcinogens are not acute carcinogens – causing cancer from a single exposure. Chronic exposures to chemicals and diseases are generally required before damage occurs – usually at a level where the body does not have time to detoxify the residues or repair damaged cells.

Bruce Ames (in his much publicized report, "Much Ado About Nothing") was trying to make this point when he said there are more naturally occurring carcinogenic materials in our foods than man-made carcinogens. Our bodies are able to detoxify these substances or repair the damage before the next exposure occurs.

Tobacco smoking is a good example. The nicotine and tar taken in

from smoking a single cigarette will detoxify or be eliminated, allowing tissue damage to repair rapidly. Constant smoking, however, does not allow the body to recover, and cancer, as a risk, is significantly increased.

EXPOSURE. What are the causes of human cancer? One of the best studies on this topic was commissioned by the Congressional Office of Technology Assessment published in 1981 in the *Journal of the National Cancer Institute*. Obviously, the institute

When working on a landscape, it's imperative that the technician be able to rationally discuss the use of the pesticide in relation to the material on which it's being applied.



PESTICIDES IN THE URBAN ENVIRONMENT

considered that tobacco and diet (not pesticide in the diet, but low fiber/high fat diets, etc.) accounted for 65 percent of cancers. Reproductive and sexual behaviors and disease infections are next on the list. Pollution and food additives were at the bottom of the list.

What are the risks of being exposed to landscape chemicals or having them end up in our water supply? Again, this is a simple question, but making sense of the scientific data can be a real headache.

First, chemical odor is not a measure of chemical exposure. Our noses can often pick up traces of chemicals which are below our chemical analytical techniques. Likewise, our noses cannot measure the amount of pesticide present. Noses can simply sense presence or absence. Odors can cause strange responses. Some people will react with alarm and get nauseous while others don't notice anything unusual. Still others may be pleased or even aroused by the odor.

Secondly, chemical residue analysis is not the same as human exposure. Many studies which have attempted to measure the chemical residues on turf and/or ornamental plants after an application have not separated the dislodgeable vs. non-dislodgeable residues. Most residue analysis studies take a sample of the plant and chemically strip or extract the material being tested.

Drs. Hurto and Yeary reported in 1993 ("International Turfgrass Society Research Journal") a summary of the studies of human exposure due to application of turfgrass pesticides, as well as potential exposure to humans after an application has been made. In summary, they indicated that if the application is allowed to dry, the potential exposure is less than 1 percent of the material applied.

Studies where a cloth or other material is rubbed on the turf surface generally resulted in even lower dislodgeable residues. Applicators of landscape pesticides obviously are exposed to much higher amounts of pesticide residues, but almost all studies have shown that their exposures are below health standard limits.

Studies initiated by Dr. Niemczyk at The Ohio State University in 1985 have indicated that the nine

(continued on page 44)

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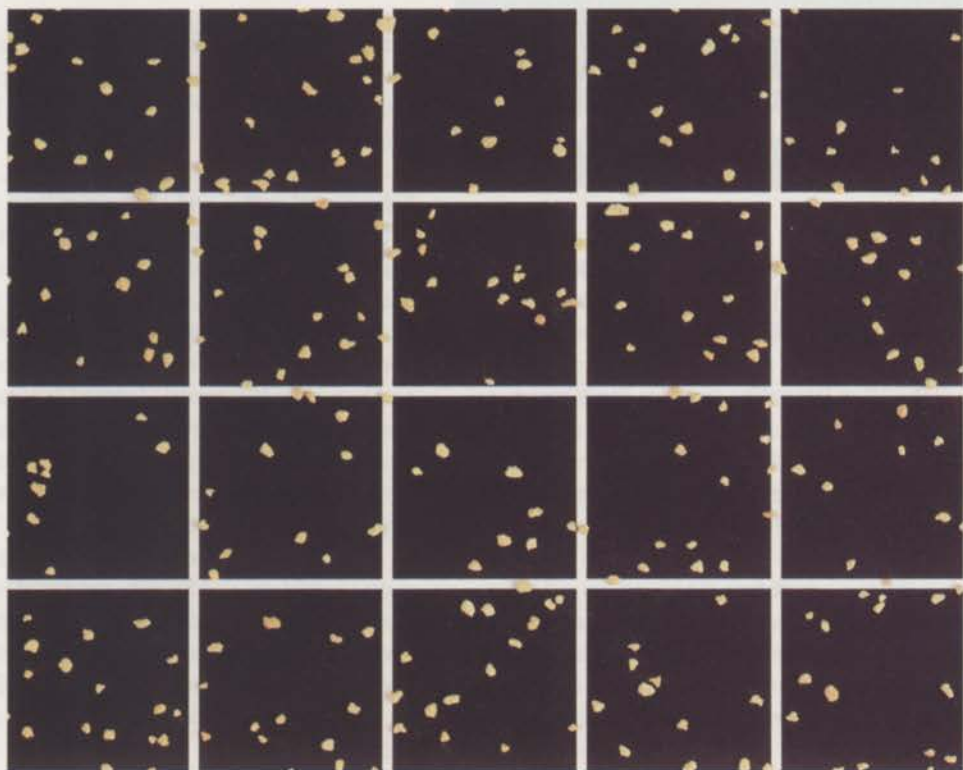
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USE READER SERVICE #11

PESTICIDES IN THE URBAN ENVIRONMENT

(continued from page 40)

commonly used insecticides applied to turf are almost entirely bound to the turf canopy and thatch. In fact, 95 percent to 99 percent of all the residues detectable are usually found in the thatch of turf.

The other interesting fact from these reports is that turf thatch and the top layer of soil under turf is extremely biologically active. Though environmental activists want the public to believe that turf is a green desert, scientific evidence suggests otherwise.

Millions of microbes and thousands of small animals live in a square foot of turf and the soil below. Some of these microbes are able to break down complex molecules remaining from the tissues of plants. These same kinds of microbes are also capable of breaking down other chemicals found in organic composts, synthetic fertilizers and pesticides.

In fact, many pesticides tend to lose effectiveness when applied regularly to the turf environment. This is not because the target pest has developed re-

sistance, but because the local microbes have "learned how to eat" the pesticide. This supports the idea that thick, healthy turf is an excellent biological filter for pollutants.

Studies by numerous agronomists (e.g., Watschke, Hamilton and Harrison at Penn State; Petrovic at Cornell; Gold and Sullivan at Rhode Island) have indicated that turf generally uses the fertilizer which is applied, rarely allowing any nitrate or nitrite to reach the groundwater table. Their studies also suggest that slow-release fertilizers pose little problem while late season, dormant applications followed with excessive irrigation can move nitrogen through the turf canopy and root zone. These problems can be easily addressed through proper programming and applications.

Obviously, the preceding is only a short summary of problems and benefits associated with using specialty pesticides and fertilizers in the landscape. Each landscape manager must take the time to obtain all the research-based information available and be willing to discuss them with employees and concerned customers.

The author is a professor in the department of entomology, The Ohio State University, Columbus.

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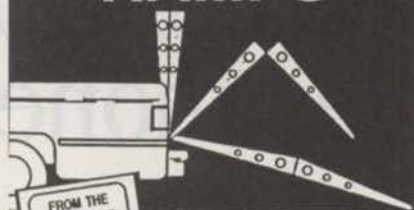
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New Vs. Used

The Contractor's Dilemma

Given the choice of buying new or used equipment, contractors concur that, with a few exceptions, it's best to keep a modern fleet.

By Bob Gitlin

WOULD YOU buy a used lawn mower? What about other types of equipment?

Faced with those questions, contractors contacted for this report agreed that, in general, newer is better when it comes to purchasing equipment vital to running a successful lawn and landscape firm. But some said they would consider buying certain types of longer-life equipment, such as aerators and rototillers, from the aftermarket.

Factors to consider were the av-

erage life of the machine in question, its durability and how frequently it would be used, as well as its track record with the previous owner: how often it was used, how it was treated and what maintenance problems it incurred.

For some machines, buying used equipment is too risky.

"I go with the gut feeling of my mechanic," said Dan Standley, owner of Dan's Landscaping, Terrytown, La. "If repairs reach 40 to 50 percent of the cost of the

machine, we buy new."

There are certain kinds of equipment that last longer than others. Standley said he is sometimes able to keep his Dixie Choppers—large, zero-turn-radius riding mowers—reconditioned to last up to six years, forestalling the cost of \$7,000 for each new one. But they normally last about four years.

He generally changes out his intermediate walk-behinds (34- to 48-inches) every third year. "Smaller mowers (21-inch) we're changing

out yearly. They get a lot more hand use, they're maneuvered in a lot more obstacles. Operator fatigue kicks in and mistakes and bang ups occur."

All contractors (both large and small firms) and manufacturers that were contacted said if considering buying used, it's imperative to obtain a maintenance history on the equipment. Similarly, it's important to maintain a history on the equipment you already own, so you can anticipate the point of diminishing returns next time a certain model is used. When you have an educated guess as to when a mower will no longer be worth fixing, you'll feel a lot better about parting with the funds to buy new.

"We're into preventive maintenance," Standley said. "That saves us money. We do oil changes regularly and have upped our longevity by using Slick 50 on all our mower engines. We also have hour meters on all our machines. Keeping proper records on odometer readings on all moving equipment helps a lot."

There's a corollary benefit here. If your records show a mower you normally get X miles or man-hours out of is a battered shell of its store-bought self 20,000 miles or 10,000 man-hours short of its normal life, you are able to attribute the shortfall to the employee who runs it. (Here, obviously, is why it helps to assign one man to one machine.) "Payroll deduction time," Standley said.

On an even larger scale are the concerns of Rob Zolezzi, co-owner of the 100-employee, burgeoning L&L Landscape Services, based in Santa Clara, Calif.

"We're fortunately big enough to have four full-time mechanics," he said. "Every unit brought in is logged into a shop record book."

A pair of gas-powered shears probably maxes out at around two years, at which point an L&L mechanic keeps a close watch on it. "That mechanic's going to

(continued on page 48)

Whether buying new or used equipment it's important to keep detailed maintenance records tracking repairs and preventive work.



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New Vs. Used

(continued from page 46)

check the log when it's brought in for repairs. If it's anything major, it goes in the scrap pile to be parted out and we issue new shears."

WEAK LINK THEORY. Zolezzi is an extremist. He stays away from all used or refurbished equipment.

"We once bought used, large ride-on mowers," he explained, "only to find they have short life spans. The exception is big reel gang mowers, of course. With large ride-on rotary mowers, you're lucky to get two, three years. Any piece of equipment is only as good as its weakest part. It's too time-consuming to have crews constantly bringing them in for repairs."

That's not to say equipment won't break or need patching up.

"No matter how new or 'perfect' your stuff is," Zolezzi said, "you're always going to need adjustments, repairs and tinkering. Things break, fall off a truck, etc. Many adjustments are made in anticipation from knowing equipment histories;

we'll adjust things as soon as we buy them sometimes, considering our special, hard-use needs."

L&L hangs onto 21-inch mowers no longer than five years, absolute tops. Small pieces of equipment—string trimmers, gas shears,

Also, his labor costs can skyrocket with repair and downtime, more so than they would for a small operator. "We service jobs that are 80 miles away from the nearest shop. We don't want that guy to have to drive back two hours be-

But the volume discount is a big plus. "I have a dozen weed eaters, a dozen gas shears, six or eight Snapers, three or four 36-inch mowers, a dozen edgers—all sitting in boxes, ready to be put together and put out into the field as needed."

What about smaller operators who can't afford to buy new equipment so often or in such volume?

They'd better try, he said.

"There is always some guy who gets up at a seminar and talks about the unit he milked for 20 years. But what about the thousands he spent on labor and parts? He should see that cost better than the big guy, come to think of it, because he has to go outside for repairs and, if he keeps records, must have a whole lot of maintenance bills relating to each unit, sitting in files in his office," Zolezzi said.

SPADES AND MATTOCKS. Actually, Zolezzi's philosophy is not too far afield from that of Rich Gaffney, whose two-truck Gaffney Landscaping, South Euclid, Ohio, has remained profitable largely because of his decision to avoid down-

It's imperative to obtain a maintenance history if you're considering buying used equipment.

edgers—usually last two years.

"We can replace the engines on smaller mowers to keep them running," he said. "We may get about six years out of 36- and 48-inch mowers."

Climate imposes limitations. "Only eight days last year did we not mow," he said. "So my commercial machines mow 30 or 35 hours a week all year long. That's a lot different from someone who idles his mowers in winter, which could extend his machines' longevity considerably."

cause a machine broke down," Zolezzi said.

Generally, he takes \$35,000 at the end of every year and buys all the small equipment his crews will need for the upcoming year. Assuming the year has been profitable (usually it is), that cost is written off. L&L keeps a comprehensive inventory of new machines in boxes at the shop, including every kind of equipment L&L regularly uses. That's unusual for a lawn and landscape maintenance contractor, Zolezzi surmised—even a big one.

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WHERE TO FIND USED EQUIPMENT

THERE ISN'T much of a market or demand for used lawn and landscape equipment, according to Dave Kahler, CEO, Ohio Farm and Power Equipment Dealers Association, Columbus, Ohio.

"Companies that provide extended warranty services shy from used equipment in the landscape services arena. Those people will buy it, work the heck out of it, run it until it falls apart, then buy new," he said.

"But the parts they try to trade in really get some of our dealers in trouble. They're not worth much; the bearings are out, blades are dull. I advise my dealers to be careful how much they tie up in a used piece of commercial lawn and garden equipment."

Dealers take in units three to 10 years old, handling them like any other piece of used equipment, said Jerry McConaha, president of Superior Implement Supply Co., Greenville, Ohio, which distributes Grasshopper mowers, among other tools.

"There is a market for (those units), by individuals mostly. You may have a commercial mower with six Grasshoppers in his fleet, then a new cat on the block gets started and may indeed pick up that used unit, intending to do a lot of his own maintenance. A lot of these guys take good care of their machines."

The best place to go for used equipment is probably from the dealer who sells the new products, he said. "You want to buy any used equip-

ment? Go to the dealer of the new. They all carry trade-in inventory. A lot of cemeteries and counties set Grasshoppers up on three-year cycles, then trade them back into their dealer."

Generally speaking, he said, these sales are more suitable to homeowners, but perhaps a commercial operator might pick one up intending to give it light use, or maybe he can tell something about its ruggedness that makes it a promising bargain buy.

You're pretty much on your own; you kick tires, like buying a used car. "You have to have faith in the dealer you are buying it from," McConaha said. "The dealer is not really interested in selling a piece of junk to the guy, because it's the dealer who has to take care of it."

Bryan Equipment Sales, Cincinnati, distributes Stihl chain saws, string trimmers, gas-powered hedge trimmers, leaf blowers (handheld and backpack), and some other equipment to lawn and landscape maintenance professionals. He said he has seen little interest in used lawn and landscape products.

"Other than with chain saws — and I don't know why — there is no interest whatsoever in the used lawn and garden equipment we carry, among commercial contractors," said Tom Jones, president. "Commercial use generally beats the snot out of it, making it useless for further commercial use."

time-inducing equipment deterioration by buying new.

"Once in a while I buy a sledgehammer, mattock or spade at a garage sale. (One of my guys drags

me to them because he collects old albums.) A good new spade is \$100; I found one for a few bucks that was ancient but built to last, long and narrow, steel to the top. Once a

homeowner approached me on a job to sell me a beautiful lawn roller he'd used once — a steal at \$15. Those kinds of things are still rugged. That's usually not the case

with used engine-driven machines," Gaffney said.

Used commercial equipment, in particular, tends to be "whipped," he explained, and a dumb invest-

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ment for another commercial operator, generally speaking.

But he's found a market where occasionally he'll find a good buy in used equipment. "On the other hand, you can pick up things from homeowners that you can use. Recently I found a Lawn-Boy at a garage sale. I can tell by grabbing the crankshaft that's hooked to the blade how beat it is. So here's a solid wear-and-tear item I can inspect. I spin the engine over. If there's no compression, forget it. But if it's got lots of compression, \$50 or \$100 could be a great deal," he said.

Rather than look for used, Gaffney's strategy is to try to buy new, low-priced small mowers and run them into the ground.

It works for him.

"The cost of repairs is incredible today," he said. "I just spent \$160 'fixing' a blower. It didn't work right. Neither did the 'tune-up.' Got a new carburetor put in. It's a joke; I haven't gotten 10 straight minutes of use out of it. That was a mistake. Except for a few instances of heavier stuff built to last — like rototillers



and aerators — buy new stuff. Forget it with walk-behind mowers. They get all bent up and hammered. A new one is \$2,500 or \$3,000. You can find them in the paper for \$600, but they're shot."

Sometimes you get lucky. Gaffney has gotten more reliable productivity out of a beater Datsun pickup he got for \$300 than out of

the \$12,000 new Ford Ranger he'd bought just before. "But as far as a walk-behind or other type of crew equipment that depreciates a lot, I won't look at anybody's junk at half the price of a new one," he said.

It's an issue that relates to customer confidence in the contractor's dependability and performance. "They can tell if you're running a

Individual contractor preference often accounts for the decision to purchase new or used equipment. Photo: Ryan

junk mower. I don't run a truck full of junk for the same reason I don't have my guys spitting or flipping cigarette butts all over the place. Image is important."

A competing, and much larger, local lawn and landscape maintenance company puts annual ads in the paper to sell off its one-year-old mowers, Gaffney said.

He's not one of their customers.

"They have huge crews. Lots of different guys handle a mower, and maybe no single guy learned enough to treat it right. Their stuff gets hammered. So they're getting rid of it before they suffer breakdowns and the related repair costs. But with a big walk-behind, once that deck is bent a little bit, it's shot for further commercial use. It's got a ridge on the cut. I can't use it."

The manufacturers do a good job updating equipment; new technology, at an affordable level, drives Gaffney's decision to maintain a

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fleet of relatively new equipment, he said.

They're constantly looking for flaws, listening to people in the field, reinforcing, putting on extra braces, changing the way they do blade engages, changing the grass collection inside the deck, and modifying chute size. With so much competition in the field, equipment is much better now than when I got in the business 15 years ago."

A walk-behind carefully handled will last 10 years, he said. "If you hammer it, it may just last a year. The smaller the company, the more likely the equipment is handled well." (This may be debatable.) "You got guys working for you that take care of your stuff, you give them the best you can afford. You'll get your money out of those guys, and the equipment."

COSTS VS. BENEFITS. Manufacturers agree buying new is generally better. But it's all relative to the type of equipment and how it is used.

"When the cost of downtime becomes too expensive," said Jim Wallace of The Toro Co., Minneapolis, Minn., "consider buying new. A big corporate mowing contractor, figuring X number of lawns to do in X number of hours, can't afford overtime, whereas an independent, little guy simply works after sundown or Saturdays if he has to."

Most contractors base the decision on how many hours an engine can take, said Dick Tegtmeier of Encore Manufacturing, Beatrice, Neb. "It depends on maintenance. Repairs, say belts, are inexpensive — until that engine goes, which is usually at 2,000 or 3,000 hours. Then sell it to a junkyard."

If considering used equipment, anticipation through maintenance histories is crucial, emphasized Jim Burns at Jacobsen, Racine, Wis. "Reliability and productivity are measurable, and usually force the answer as to whether to run a new or used unit. We recommend a certain

When the cost of downtime becomes too expensive, consider buying new.

maintenance program that documents the amount of attention a mower requires, so they can track costs."

Sandy Gridley, Ransomes America, Lincoln, Neb., pointed out that manufacturers can't always predict the life span of its products. Thus, how the equipment is used determines how fruitful it will be for a second owner.

"It's like a car," she said. "Some may go 200,000 miles, others just 100,000. If you use one of our seeders in really tough soil conditions, with a lot of rocks, it'll probably hold up less well in a used condition. Normal soft ground will

extend the useful life of the tool."

Bill Peel of Echo, Lake Zurich, Ill., maintained that while some contractors can milk old equipment for years, the technology put into new equipment makes it worth its price.

"There are people who have been using our old PB9 power blowers for 20 years," he said. "But we encourage buying new technology. We can't tell a commercial operator to retire his entire chain saw line, which he took great care of. People keep machines running with 25-year-old power heads for novelty and pride, boasting they got their money's worth. But we strongly encourage trading up for new technology in

both handheld and backpack power blowers."

And that's the bottom line. There's a tradeoff between pride in maintaining a solid used or reconditioned machine, and making sure your crews don't incur downtime traceable to having to lash tattered equipment back together with baling wire, scotch tape, bubble gum and spit.

For the most part, each lawn and landscape maintenance professional must make his own decision, based on his size and needs, on just how new, or used, a fleet to run. ■

The author is a Contributing Editor to Lawn & Landscape Maintenance magazine.



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'94 New Product Showcase

Manufacturers and suppliers are gearing up for 1994 with a vast display of new product offerings. To help you plan for 1994, Lawn & Landscape Maintenance magazine once again expanded its new product section to present the latest equipment, turf, tree and ornamental products available.

MOWERS

The **Kees Hydro** commercial walk-behind mower from F.D. Kees Manufacturing promises increased productivity and zero-turning-radius maneuverability.

The hydro mower provides fingertip control for instant forward, reverse and turning without slippage on inclines or in wet conditions. The HydroTrac™ tracking adjustment ensures straight-tracking on slopes and in a variety of conditions.

Easy straight-track adjustment requires no tools and is easily aligned by the operator to eliminate any drifting.

The Quick-Lift deck height adjustment is controlled with a spring-assisted lever from the operator position, making going over curbs or loading into trailers an easier task for the landscape crew.

Circle 125 on reader service card

American Honda Power Equipment offers the Harmony hydrostatic drive riding mower, featuring



an 11-h.p. overhead valve engine, electric start and hydrostatic drive transmission. Equipped with a 30-inch mowing deck standard, the side-discharge model can be easily

converted to bag or mulch with available kits.

The mower's body is made of high-strength, thermo-plastic resin. The quick install/remove mowing deck includes anti-scalp wheels and a high-lift blade design.

Circle 126 on reader service card

Two high-wheel mowers featuring a commercial grade engine are avail-



able from **Husqvarna Forest & Garden Co.**

Models 56C, a walk-behind mower, and 56CP, a self-propelled walk-behind mower, each boast a Kawasaki 4.5-h.p. overhead valve engine. The industrial grade engine is easy to start and provides smooth operation, particularly during heavy commercial jobs.

Specifically designed for special tasks and sensitive turf areas, each of the Husqvarna models rides on 8-inch ball bearing front wheels and extra-large, 16-inch ball bearing rear wheels.

Both models offer seven cutting heights, ranging from 0.88 inches

to 3.88 inches, to accommodate all types of grass and field cutting conditions.

Circle 127 on reader service card

The compact GF1800E front mower from **Kubota Tractor Corp.** features a hefty, 18-h.p., liquid-cooled diesel engine and a variety of performance and safety features. The mower is ideally suited for large lawns and public parks and fields.

The Kubota GF1800E line includes three shaft-driven, off-set mowers: a 48-inch, mulching, rear-discharge mower; a 54-inch side-discharge mower; and a 60-inch side discharge mower. All three decks offer a cutting height ranging from 1 to 4 inches, as well as a hydraulic brake, clutch and lift system.

Circle 128 on reader service card

Zero-turn agility, ultra-smooth dampened steering and superior hillside traction and stability are the goals for the Multipurpose **Exmark Explorer® II**.

The mower's 52-inch floating cutting deck provides an even cut while the deck's TriVantage™ design allows for mulching, bagging or discharge. Exmark's Micro-Mulch™ accessory recycles clippings into the turf, and a rear utility box transports tools, plants and other materials.

Circle 129 on reader service card

Dixon Industries offers the ZTR 2301 riding mower featuring a

(continued on page 54)

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New Product Showcase

(continued from page 52)

30-inch cutting deck, compact design and zero-turning radius mobility which allows the operator access to areas previously only reached by walk-behind mowers.

The ZTR 2301 features a heavy-duty mechanical transmission designed to give the feel and performance of a hydrostatic drive at less cost.

Other highlights include a tilt-up, high-density polyethylene body, laser cut steel frame and 14-h.p. Kohler engine that can run for 100 hours between oil changes.

Circle 130 on reader service card

Commercial lawn service operators can improve productivity with **Snapper's** Pro 7 Hydro.

The mower incorporates Snapper's Accu-



trac™ hydrostatic control system which allows the operator to precisely adjust tracking by moving a single, handle-mounted lever. The lever controls forward speed as well.

The automatic tracking system means the operator does not have to stop mowing to adjust tracking, thereby reducing shut-down and the need for tools.

Available with 36-inch and 48-inch mowing decks, the Pro 7 Hydro is compatible with Snapper's patented Ninja® mulching blade and wall roller attachments.

Circle 131 on reader service card

Excel Industries' Model 2500 mower features zero-turning radius and Trim Steering™ for controlling the product's forward, reverse and turns with one hand.

The Model 2500 is powered by the Kohler Command 22-h.p. engine and can be fitted with 52-, 60- or 72-inch side-discharge mowing decks.

Excel also offers the 251K and 260K models of the compact line which feature Turbo Shredder™ recycling decks.

Optional attachments for the compact line include side mounted edgers and a BAC-PAC™ collection system.

Circle 132 on reader service card

The **Toro Co.'s** Guardian 62 Recycler Deck can be retrofitted to the company's Groundsmaster 200 Series mowers.

The Guardian 62 deck is designed to force discharge downward and confine it to the mower's width, thereby decreasing the risk of hazardous

(continued on page 56)

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USE READER SERVICE #58

New Product Showcase

(continued from page 54)

discharge, especially in pedestrian areas.

The Guardian Recycler cuts and re-cuts grass 10 to 15 times more than regular mowers. The grass clippings are forced deep into the turf directly beneath the deck.

Circle 133 on reader service card

Jacobsen's fine-cut flail mowing decks feature full-width rear discharge and an adjustable, full-



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Fine-cut flails, which tend to be quieter, are ideal for use along roadsides or near schools, hospitals, office buildings and in parks.

The lower rpm and lightweight, free-swinging blades prevent large objects from being picked up and discharged into traffic or near pedestrians. Small objects are discharged downward into the turf at the rear of the mower.

Circle 134 on reader service card

SEED

Jacklin Seed Co.'s Sunrise brand seeded zoysiagrasses, *Zoysia japonica* and *Zoysia sinica*, are enhanced with chemical pretreatment to improve germination and resulting establishment.

Seed of *Zoysia japonica* is readily available. Because it is pretreated, most of the seed has an 80-plus germination. It can be seeded at 2 to 3 pounds per 1,000 square feet (if soil temperature is above 70 degrees) so that germination takes about 17 to 20 days.

Two experimental varieties of improved, turf-type, warm-season *japonica* are expected to be in limited supply in 1994.

Circle 135 on reader service card

Falcon II, a turf-type tall fescue from E.F. Burlingham & Sons, will be available in larger quantity for 1994. The semi-dwarf, moderately high endophyte-enhanced tall fescue is bred for brown patch disease resistance and has enhanced, dark green genetic color, denser growth from more tillering and high insect resistance.

Circle 136 on reader service card

Turf-Seed Inc.'s Unique Kentucky Bluegrass cultivar produced excellent medium green dwarf turf and exhibited very good seed production qualities in the 1992 National Turfgrass Evaluation Program trials and low-maintenance trial.

Unique, a compact-type bluegrass selected from an old turf area in Rhode Island, shows very good leaf spot and stripe rust resistance, plus resistance to other important turf diseases. It also shows early spring green up.

The bluegrass cultivar is recommended for sod production, home lawns, golf course fairways and roughs and athletic fields.

Circle 137 on reader service card

PRUNERS

The lightweight Wallace Long-Handled Anvil Pruner sports a 13-inch long handle, so it looks more like a lopper, but its head's pruner design makes it easier to lift and keep in motion when working on a bush or vine.

The longer handle provides added leverage and strength needed for larger or more cumbersome cutting jobs, while the small cutting head greatly reduces the weight compared to a standard lopper head.

The anvil head is especially effective on the



woody, fibrous branches and rose bushes.

Circle 138 on reader service card

The Hedger—a hedge trimming attachment for the telescoping Power Pruner—is available from Technic Tool Corp.

The hedger's cutting blade is designed to shape, prune, trim and thin hedges, brush and limbs up to 1 1/2 inches in diameter. The blade is manufactured from hardened spring steel to ensure longer teeth life.

Easily affixed to the Power Pruner, the hedger can be used to safely trim and prune hard-to-reach areas.

The portable hedger weighs less than two pounds and has a steel guard for operator safety.

Circle 139 on reader service card

IRRIGATION

Toro's Irrigation Division added a new line of low-pressure, low-precipitation rate, large turf sprinkler heads. The 730/750 Series is ideal for slower absorbing soils and for operating under a wide range of pressures.

Developed by landscape architects and irrigation consultants, the 730 and 750 sprinklers have 3-inch pop-ups to clear tall grasses, color-coded nozzles for easy identification during installation

(continued on page 60)

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A 4-wheel drive that's built

The John Deere F1145 projects the kind of durability that leaves other front mowers quaking in its shadow.

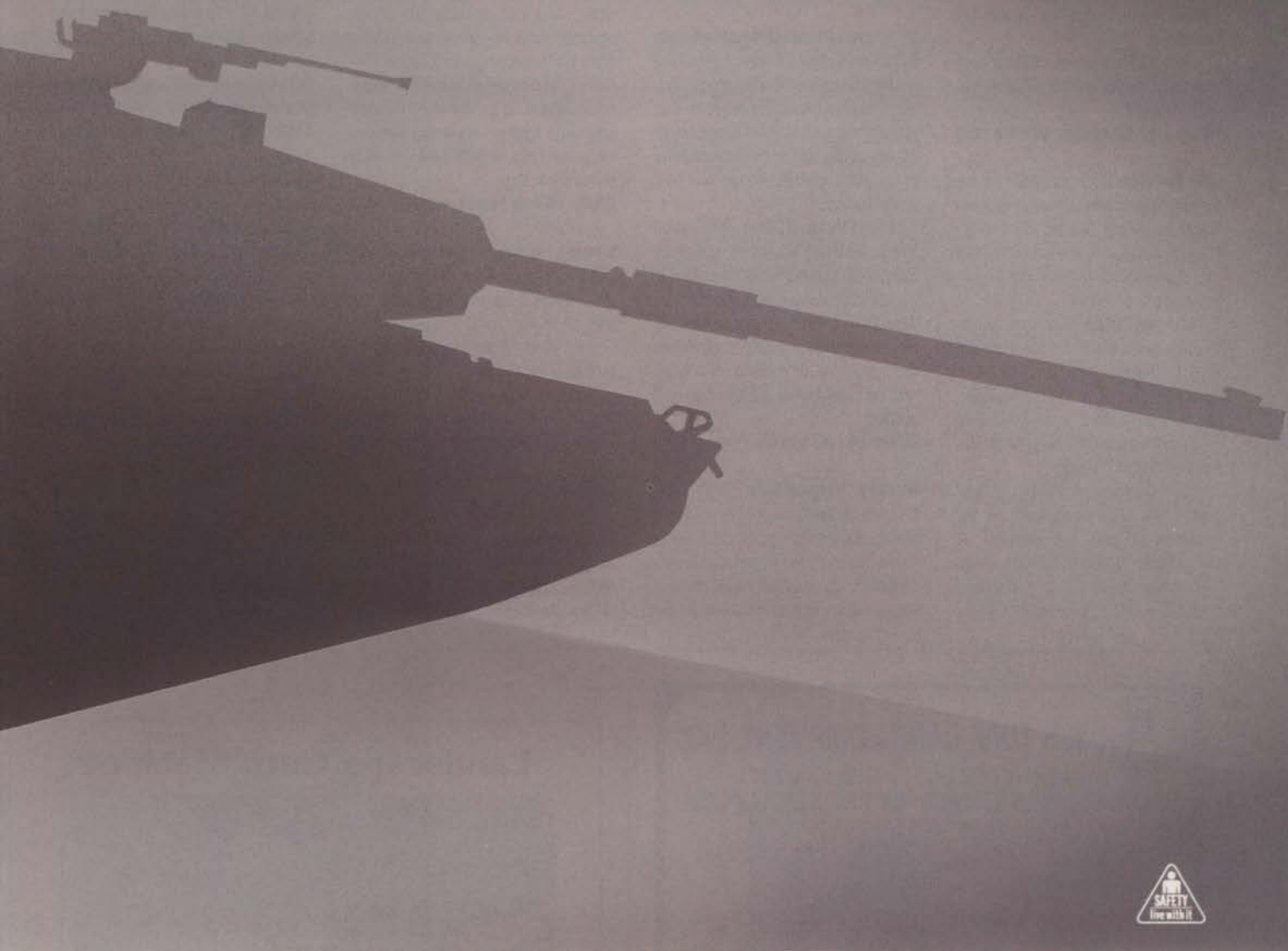
More rugged than other front runners you'll run into, the F1145 reflects the best that John

Deere has to offer. Deriving its Samsonian strength from the componentry it shares in common with our best-selling 855 Compact Utility Tractor.

Features like a 2-speed axle, hydrostatic drive, wet-disk

brakes, planetary final drives, and differential lock.

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like a you-know-what

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4-wheel-drive diesel.

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See your dealer today for a demonstration. Or call 1-800-544-2122 for more information.



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LIKE A DEERE®**

USE READER SERVICE #98

New Product Showcase

(continued from page 56)

tion and a variable stator to maintain constant rotation speeds no matter which nozzle is installed in the turf.

Optional features include a Toro yardage marker and an effluent water indicator.

Circle 140 on reader service card

The **Hunter I-40** gear-driven rotary sprinkler has a heavy-duty retraction spring for positive pop-downs, a safety-cushioned rubber cover and locking body cap to prevent any tampering.

The sprinkler has six interchangeable nozzles to vary irrigation discharge rate and radius. Depending on the nozzle specified, the I-40 can be adjusted from 7 to 27.5 gpm and the radius set between 45 and 74 feet.

The I-40 is also available with an adjustable arc which may be set between 40 and 360 degrees. A fixed, full-circle model is also sold.

A drain check valve is standard on the I-40 to help conserve water

and reduce liability and puddling around sprinklers caused by low-head drainage. It checks up to 15 feet of elevation change.

Circle 141 on reader service card

New from **Olson Irrigation Systems** is the TSR-1 which provides a simple method of adjusting sprinkler heights. As soil settles or turf growth occurs, it is no longer necessary to dig up the entire head and swing joint assembly to gain or lose a few inches.

The Olson TSR-1 Threaded Sprinkler Riser allows the sprinkler head to be turned without excavating the entire swing arm assembly. The TSR-1 fits between the swing elbow and the sprinkler head. When the sprinkler is rotated, the head will be elevated or lowered up to 3 inches.

Circle 142 on reader service card

Hardie Irrigation's HR-6100 Controller features a new contemporary look with a gray case, and a two-sided, velcro-taped quick-reference guide card/informative "watering-times" chart attached to the

inside door panel. Its new dial format is similar to that of Hardie's Rain Dial.

The six-station indoor controller features a dial to control all functions, and can operate up to six stations with two programs (three start-times per program). Other features of the controller include digital readout, a seven-day weekly schedule with select-a-day option, rain override switch and a 9-volt battery backup.

Circle 143 on reader service card

Irrrometer Co. has been granted a U.S. patent on its newest generation of the Watermark Soil Moisture Sensor.

The new Watermark boasts a stainless steel case with 60 percent greater surface area available for contact with soil moisture.

Circle 144 on reader service card

EDGERS TRIMMERS

HLS Industries offers a hand-held hedge trimmer sharpener and hedge sweep. The trimmer sharpener features a guide system, with a rotating

stone, that rests between the teeth making sharpening a snap. It is available in 110- and 112-volt sizes.

The hedge sweep brushes clippings off the shrub as you trim; allows you to see where you have already trimmed for neater, straighter cuts; improves safety; and mounts easily on any model and trimmer size.

Circle 145 on reader service card

Makita added three new models to its line of trimmers.

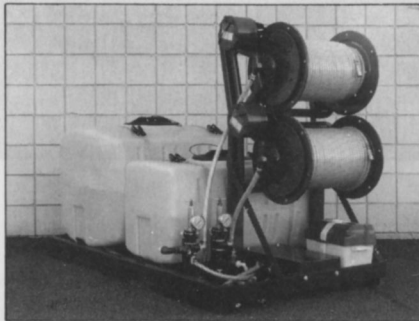
Models RBC221 and RBC251 feature an aluminum, straight-shaft design, while the RST250 offers a curved shaft design for a clear view of the work areas and allows the operator to stay close to the trimming work for better control and handling. All three models are equipped with an adjustable front handle for multi-positioning.

The trimmers also feature 16-inch diameter, dual-string trimmer heads with pop-in string spool cartridges for easy replacement, and automatic string feed which advances string to the desired length

(continued on page 62)

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USE READER SERVICE #56

NOVEMBER 1993 • LAWN & LANDSCAPE MAINTENANCE

 Tree roots break through sidewalks. They can break through into greens and sand traps. They can even break through into hazardous waste sites and contaminate everything around them. In fact, wherever you need to maintain the integrity around an area with trees, you need a root control system that works.

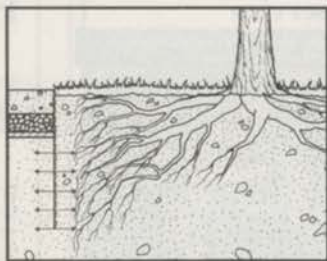
polypropylene fabric that allows air and water to flow through while holding the nodules in place.

And you don't have to worry about replacing it anytime soon. Biobarrier is guaranteed to prevent root encroachment for over 15 years when used in vertical applications, and can remain effective for up to 100 years in certain applications. Plus, its

Breakthroughs Like This

Led To A Breakthrough Like This.

And that's why there's Biobarrier[®], a breakthrough in the prevention of root encroachment. It's the root control system that stops roots and controls their route. Biobarrier is a geotextile that features controlled-release nodules containing trifluralin, a non-systemic active ingredient with a successful track record of redirecting root growth spanning over 30 years. Plus, Biobarrier is made with Typar[®], a rugged



flexibility allows it to be cut, shaped, or formed to virtually any configuration your site requires.

Biobarrier. It's a root control breakthrough that we guarantee will keep your roots from breaking through. For more information, call 1-800-25-ROOTS.

Bio **barrier**[®]
The Roots Stop Here.

New Product Showcase

(continued from page 60)

by quickly decreasing, then increasing engine speed.

Circle 146 on reader service card

ENGINES

Kohler Co.'s Command™ 25-h.p. (CH25) horizontal engine, developed for high-horsepower needs, is an overhead valve, V-Twin unit.

Providing 725cc displacement in a compact 94-pound package, the Command 25 features nickel-silicon plated Power-Bore™ cylinders. Such plating helps increase engine power and provides longer cylinder life, improved oil control and reduced exhaust emission.

The electronic Smart Spark™ ignition retards engine spark for optimum starting and slow speed running while advancing the engine timing for peak efficiency during high speed operation.

Circle 147 on reader service card

Kawasaki offers a complete line of FD overhead valve, V-Twin engines for industrial use.

Each FD engine features a compact cooling system using a fan-cooled radiator. Coolant hoses are routed to a contained profile for easier installation.

The FD series engines, constructed of lightweight aluminum and composite materials, offer a 90-degree, V-Twin, four-stroke design to eliminate vibration.

A noise-suppressing composite rocker cover and double-walled, three-stage chamber muffler help silence engine exhaust.

Circle 148 on reader service card

Briggs & Stratton Corp. and Daihatsu Motor Co. teamed up to offer the Briggs & Stratton Daihatsu (B&S D) line of small, water-cooled engines. The new, three-cylinder engines called Vanguard™ are designed and manufactured by Daihatsu Motor in Japan. Parts and service for the engines will be handled by Briggs & Stratton distributors and dealers.

The engines, ranging from 16 h.p. to 31 h.p., are gasoline and natural gas powered. Diesel versions, offering the same h.p., will

become available in the future.

Circle 149 on reader service card

The Enduro® 16-h.p. overhead valve engine from **Tecumseh Products** offers greater fuel efficiency, up to a 25 percent increase over L-head designs, plus increased horsepower per cubic inch of its 29.9 cubic-inch displacement.

The engine features a cast-iron cylinder sleeve and a rotary, high-pressure oil pump with 55-ounce capacity for cooler running.

The engine is equipped with the Ultra-Balance® system to reduce vibration. A one-piece, helical gear-driven shaft with upper and lower weights control vibration without creating noise.

Circle 150 on reader service card

PESTICIDES/ FERTILIZERS/ SPECIALTY PRODUCTS

Terra International introduces Riverside Silkin, an organosilicone-based wetting agent that provides excellent coverage of herbicide sprays on weed leaf surfaces.

Silkin is a non-ionic, low-foam surfactant that expands pesticide activity by creating more spray droplets for better coverage. Silkin also causes the pesticide to penetrate the canopy quickly and enter into the cuticle of the plants.

Riverside Silkin is available in 1-gallon containers.

Circle 151 on reader service card

A non-toxic way to get rid of ants and other insect pests comes from **Concep Inc.**

Instead of killing bugs, Concep's "SureFire" aerosol sprays and tapes. Made with Du Pont's "Teflon" fluoropolymer resin, SureFire makes pests lose their footing.

When applied to vertical or



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steeply inclined surfaces, slippery spray coatings or tapes can prevent crawling insects from reaching places where they cause damage.

Typical tape uses include protecting trees against gypsy moths, caterpillars or other insects and blocking insect access to decks, patios and porches.

Circle 152 on reader service card

Soil Moist Polymer Disks™ from **JRM Chemical** are water-storing polymers that encapsulate an eight- or nine-month, timed release, 10-10-10 fertilizer.

For fertilizers that are polymer coated to give a 10 percent coated slow release, the Soil Moist Polymer Disk captures and stores water that would normally percolate through the soil. When the soil dries, the disk releases stored water and nutrients. It then continues to store and release water for several seasons, even after depleting nutrients.

Easy to apply, the disk helps eliminate mistakes by field personnel. It is ideal for trees, shrubs and container plants.

Circle 153 on reader service card

American Cyanamid offers Top-site™ 2.5G herbicide, a granular product that provides broad spectrum vegetation control of more than 100 grasses and weeds, in-



cluding tough species like johnsongrass, quackgrass, foxtail and bermudagrass.

Top-site is carried on limestone granules, reducing potential for drift or off-site damage. With its granular formulation, no mixing or special equipment is needed. Leftover herbicide is easier to reuse. Cleanup problems are also minimized.

Circle 154 on reader service card

Prism™ .94EC, a newly registered herbicide from **Valent U.S.A.**, controls annual bluegrass, crabgrass and foxtail grasses in ornamentals. It can be used in bedding plants, landscapes, nurseries and greenhouses.

Prism works well mixed with a non-ionic surfactant. There have been no field reports of photo-toxicity problems.

Prism will be available in the first quarter of 1994 and will be sold in a quart size and a 1-gallon jug. The manufacturer recommends growers test Prism on a small number of plants before applying.

Circle 155 on reader service card

Ciba offers a new package design for its Award fire ant bait that ensures more comfortable handling, efficient dispensing and easy resealing.

A 1-gallon recyclable jug was combined with a vertical handle



and Magenta Corp.'s threaded, one-piece Pop-Lok dispensing closure. Just flip Pop-Lok's lid open with your thumb to expose the closure's five orifices for spreading Award onto a fire ant mound.

To prevent accidental spills between applications, the closure has orifice-matching plugs in its lid that provide a tight seal when it is snapped shut.

The new Award package replaces a three-pound pail with a lid that pinched the user's fingers when it was opened.

Circle 156 on reader service card

O.M. Scott & Sons' Triaform granular fertilizer replaces highly water-insoluble nitrogen with short-chain methylene urea polymers to allow more efficient use of nitrogen, and provides faster particle breakdown on turf.

Triaform technology provides more consistent, predictable response in an eight- to 12-week time frame since nitrogen is less influenced by soil temperature, moisture or pH.

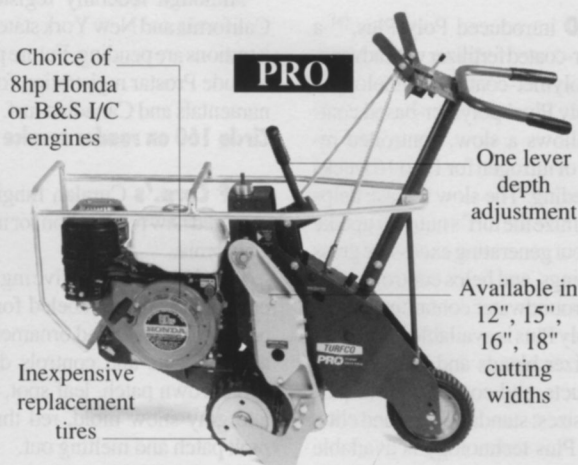
Triaform is chemically homogeneous with all the nutrients contained in each particle.

Circle 157 on reader service card

Merit, from **Miles**, is a new broad-spectrum, systemic biological insecticide for the control of a wide range of pests. The compound controls

LOOKING FOR A BETTER SOD CUTTER?

Turfco Gives You Two



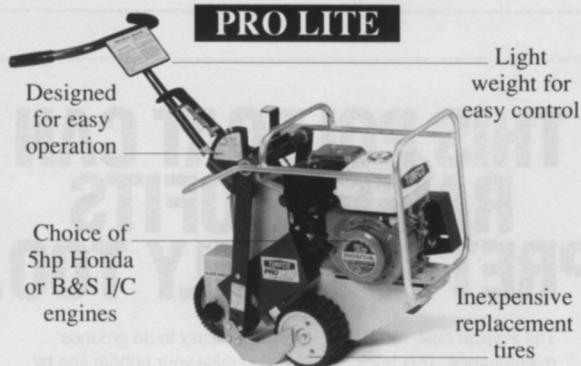
Choice of 8hp Honda or B&S I/C engines

PRO

One lever depth adjustment

Available in 12", 15", 16", 18" cutting widths

Inexpensive replacement tires



PRO LITE

Designed for easy operation

Light weight for easy control

Choice of 5hp Honda or B&S I/C engines

Inexpensive replacement tires

Turfco introduces the newest idea in sod cutters: a choice. Choose the Turfco Pro or Pro Lite. Both have been redesigned for smoother running, simpler operation and lower maintenance costs. Now you can fit the machine to the job, instead of the other way around.

Turfco has shown our dedication to quality, customers' needs and innovative design by building rugged turf maintenance products that have been the better choice since 1953.

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virtually all commercially important sucking insects including aphids, whiteflies, thrips, scales, psyllids, plant bugs and leaf and planthoppers. Additionally, it is effective on Coleoptera pests and exhibits moderate activity on certain Lepidoptera and Diptera species.

Merit can be applied foliarly or by soil, seed or trunk applications.

Environmental Protection Agency registration is pending.

Circle 158 on reader service card

LESCO introduced Poly Plus,TM a sulfur-coated fertilizer with advanced, polymer-coating technology.

Poly Plus' polymer-based coating allows a slow, controlled release of nitrogen for 12 to 16 weeks of feeding. The slow release helps maximize the turf's nutrient uptake without generating excessive grass clippings, and helps control potential groundwater contamination.

Poly Plus is available in LESCO fertilizer blends and combination products, and comes in three particle sizes: standard, mini and elite. Poly Plus technology is available on sulfur-coated urea, coated po-

tassium sulfate and sulfur-coated diammonium phosphate.

Circle 159 on reader service card

NOR-AM's Prostar fungicide is registered for use on all fine turf.

Prostar has been evaluated at 17 major universities and field tested by more than 650 golf course superintendents. The fungicide offers residual control of brown patch and southern blight, and is formulated to suppress fairy ring.

Although federally registered, California and New York state registrations are pending. Future plans include Prostar registration for ornamentals and Canadian turf.

Circle 160 on reader service card

BASF Corp.'s Curalan fungicide received new registration for use in California.

Curalan, with the active ingredient vinclozolin, is labeled for use on all turfgrasses and ornamentals and prevents and controls dollar spot, brown patch, leaf spot, pink and gray snow mold, red thread, pink patch and melting out.

The BASF fungicide is avail-

able in 5.5-pound dry flowable and 1-gallon and 1-quart liquid flowable formulations.

Circle 161 on reader service card

SOFTWARE

Dillaware updated The Billing ClerkTM computer software to include 64 new features. The software is directed toward small businesses that need a quick, easy way to automate their billing processes.

The Billing Clerk program does one-time invoicing for service, proposals and work orders, which can be saved to disk for later recall and batch printing. The program also includes recurring billing functions for maintenance fees, and a term billing option which allows installment payments for large charges.

The Billing Clerk runs on any IBM compatible computer and requires DOS 3.0 or higher, 640K RAM and a hard disk.

Circle 162 on reader service card

GenericCADD[®] Release 6.1, a new version of the computer-aided design and drafting software from **Autodesk**, now includes the capa-

bility to write files in the AutoCAD[®] .DWG format. This enhancement — along with a new AutoCAD-style, on-screen menu option and on-line command cross-reference — makes it easier for users of Generic CADD and AutoCAD to work together and exchange 2D files electronically when moving from one stage of the design process to the next.

Generic CADD runs on a desktop or laptop personal computer.

Circle 163 on reader service card

Synoptic Systems, makers of Lbase, announces substantial enhancements to all of its software products for the green industry.

The Lbase accounting program supports a newly enhanced purchasing, A/P, billing, A/R, banking and job cost system. Lbase Estimating now offers a CAD import function capable of importing the output from any CAD drawing directly into an estimate. Lbase routing and scheduling offers an improved billing, A/R and banking system.

(continued on page 66)

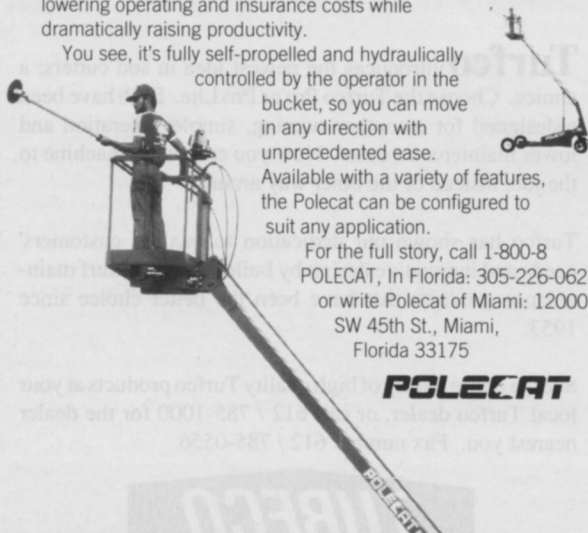
THIS POLECAT CAN RAISE PROFITS PRETTY EASILY TOO.

The Polecat does more than just make it easy to do grounds maintenance. This bucket lift can also raise your bottom line by lowering operating and insurance costs while dramatically raising productivity.

You see, it's fully self-propelled and hydraulically controlled by the operator in the bucket, so you can move in any direction with unprecedented ease. Available with a variety of features, the Polecat can be configured to suit any application.

For the full story, call 1-800-8 POLECAT, in Florida: 305-226-0621 or write Polecat of Miami: 12000 SW 45th St., Miami, Florida 33175

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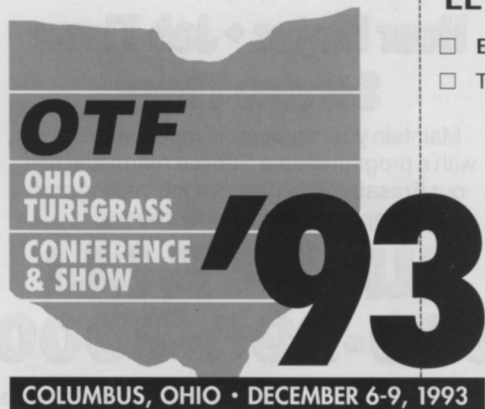
- LAWN CARE
- GOLF TURF
- SPORTS TURF
- GROUNDS MANAGEMENT



Grow your efficiency on the expanded trade show floor by learning about the equipment, materials, and supplies that will save you time and money while helping you better manage your turf.

Grow your contacts by meeting, and getting to know, your fellow professionals from around the state and around the country. Enjoy your old friends and meet new ones. Thousands of golf, grounds, lawn care and sports turf managers make OTF the one show they "must" attend.

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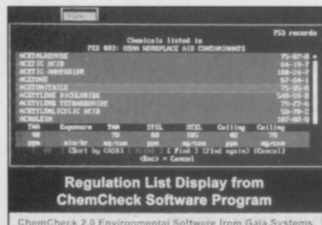
New Product Showcase

(continued from page 64)

A new, fully integrated report writer is also available. It enables users to create new reports and modify existing ones. Lbase software is IBM compatible.

Circle 164 on reader service card

The PC-based ChemCheck computer software program from **Gaia Systems** is designed to enable pesticide applicators and others that handle chemicals to determine



which federal and state environmental regulations may apply to their chemical and hazardous materials inventories.

The new release, called ChemCheck 2.0, cross-references user-created chemical inventories to

more than 10,000 hazardous chemicals listed in various federal and state environmental regulations.

Gaia expanded its regulatory list and the number of chemicals listed.

Circle 165 on reader service card

COMPOSTERS

The Groundskeeper II Compost Bin from **Delvin & Taylor Co.** measures 3 feet by 3 feet and can hold 150 gallons — approximately five commercial lawn-refuse bags of yard waste — at one time. The composting process begins immediately, reducing volume and allowing the user to continue filling the bin. One compost bin will compost up to three-quarters of a ton of organic waste.

Groundskeeper II is lightweight and folds down flat, keeping both storage and shipping costs to a minimum.

Circle 166 on reader service card

The **Swisher Solar Composter** rotates automatically, using a 12-volt power system and solar panel, to reduce 23 bushels of waste to rich compost in two weeks.

All large-capacity solar models feature an optional second compartment for simultaneous composting and storage.

Manufactured from recycled metal, the Swisher Mower and Machine Co.'s new breed of composters reduces yard waste and organic garbage into nutrient-rich compost ideal for use as fertilizer, mulch or top dressing.

Swisher's enclosed tumblers, made of 1/16th-inch galvanized steel, control problems like insects, odors and intruding rodents.

Circle 167 on reader service card

VEHICLES

Ransomes America Corp. introduces a mid-range turf utility vehicle, the Cushman UTV Magnum. Specifically designed to transport large items around golf courses or other areas, the UTV Magnum's extra-long cargo bed measures 44 by 60 inches.

Several of the vehicles features help ensure quiet, smooth operation. These include a powerful, 14-h.p. Vanguard engine attached to the frame with rubber mounts, a

large muffler and an operator-friendly pedal start. This new vehicle can carry up to 1,500 pounds of cargo, including one operator and one passenger. Maximum speed is 16 mph.


Circle 168 on reader service card

Maneuverability and off-road agility highlight the appeal of the **Kawasaki Mule™ 1000** utility vehicle.

With seating for two passengers, a tiltable cargo bed and total payload capacity of 1,000 pounds, the Mule 1000 is ideally sized for turf, industrial and other off-highway applications.

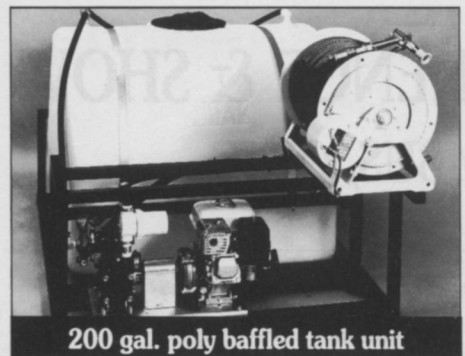


Power is supplied by a 454cc liquid-cooled, 8-valve, 4-stroke, twin-cylinder gasoline engine located beneath the seat and bed. The



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unit-construction engine and final drive are completely enclosed in an aluminum casting bolted together for maximum strength and minimum maintenance.

The Mule 1000 also features a continuously variable, belt-driven automatic transmission. A V-belt links the pulleys on the engine and transmission.

Circle 169 on reader service card

The HM4209 utility vehicle from **Haul Master** is powerful, small sized and economical. The 9-h.p. vehicle has a 750-pound load capacity and maneuvers well in tight places, on rugged terrain and on paved surfaces.

The multi-purpose vehicle is ideal for construction and grounds maintenance. It can be used to transport cargo and warehouse loads, check irrigation lines, reach an off-road campsite and other tasks.

The vehicle seats two and is equipped with a 48 1/4-inch wide by 48-inch high bed, providing ample hauling space.

The HM4209 features a 9-h.p. Briggs & Stratton engine, an elec-

tric starter and electronic ignition.
Circle 170 on reader service card

TUB GRINDERS

Haybuster broadens its line-up of products with the release of its newest tub grinders.

A round tub unit, the Haybuster Industrial Grinder offers high-capacity grinding for waste wood, tree clippings, leaves, grass, tree bark, residential yard waste.

The Industrial Grinder is diesel-powered. (Electric-powered units are available upon request.) Tubs are available in 8, 10 and 12 foot diameters.

The Haybuster HD8 is especially suited for grinding tree limbs up to 6 inches in diameter, yard waste, wood chips and bark. The HD8's features include a variety of screen sizes and a heavy-duty, 26-inch long cylinder with 3/4-inch hammers that processes and compact yard waste.

Circle 171 on reader service card

SNOW THROWERS/ ROTARY BROOMS

Yazoo Manufacturing Co. added the Rotary Broom and Snow Blow-

erto its product line of products that can be hitched to a tractor.

With a 200-rpm broom speed and 21-inch bristle diameter, the Rotary Broom features adjustable casters, float-assist spring and 24 replaceable wafer bristles. The Snow Thrower has a two-stage design, telescoping drive shaft, variable position skid shoes and reversible cutting blade.

Both attachments are designed to be installed from the tractor seat.
Circle 172 on reader service card

Excel Industries offers an array of attachments for its Hustler Out-Front rotary mower, including a snow thrower and rotary broom.

The Snow Thrower is PTO-driven and hydraulically controlled. The open-center auger design and three-blade impeller feed snow directly to the hydraulically controlled spout. Snow can be blown in almost any direction within a 190-degree radius.

The Sweepster Rotary Broom is ideal for light snowfalls on sidewalks and other paved areas and for sweeping dirt and other debris from

parking lots, streets and construction sites.

Circle 173 on reader service card

The **Ariens Co.'s** lightweight snowthrower, called the Ariens Plus™ model Sno-Thro,® combines a 2-cycle Tecumseh Snow King Engine with two-stage throwing action to power through snow on sidewalks, driveways, patios and porches.

The Ariens Plus weighs 67 pounds and is easily self-propelled



by the natural motion of the auger. The 9.5-inch diameter auger, with a 20-inch clearing path, is engaged by squeezing a small handle below the main handle. A chute control

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discharges snow up to 25 feet.
Circle 174 on reader service card

CHAIN SAWS

Shindaiwa's 757 model, heavy-duty chain saw displaces 4.5 cubic inches and produces 5.6 h.p. The 757 features a filter system that results in less-frequent cleaning; fuel and oil systems with larger reservoirs; a high-capacity cooling system and boot-mounted carburetor for quick restarts.



Shindaiwa also offers five other gas-powered models, from 1.7 to 4 h.p. with displacements ranging from 1.7 to 3.5 cubic inches. Features include advanced muffler and anti-vibration systems, safety chain brakes and throttle interlocks.

Circle 175 on reader service card

Echo Inc. offers the CS-3900 chain

saw with a 39.6cc, 2-cycle engine, ProFire™ Electronic Ignition and all-purpose diaphragm carburetor and accelerator pump.

A standard 16-inch bar and chain are part of the unit, but an 18-inch version is optional. An automatic oiler ensures smooth, trouble-free cutting and improved, longer chain and bar life.

The CS-3900 is designed with a two-piece vertical crankcase/cylinder design that results in higher engine rpm for faster cutting and good power-to-weight ratio.

Circle 176 on reader service card

MISCELLANEOUS

Injecto-matic offers a chemical injection system for pesticides which can be retrofitted to any existing sprayer regardless of pump and motor type.

Each unit has a piston-driven hydraulic pump. Water pressure in the pipeline leading to the injector starts the pump. The alternative movement is transmitted to the piston plunger creating suction plus injection.

Special features include single

or double injection units, full aluminum construction, lockable chemical storage, convenient bypass valves, backflow preventers and easy to adjust rates.

Circle 177 on reader service card

A low-profile dumper spreader from **Grotech** applies bulk salt or sand to icy areas. The self-contained unit replaces the tailgate on truck dump boxes.

The thermo-plastic, no-rust hopper is supported by a weather resistant, powder-coated steel frame. Material is fed by an auger to an adjustable chute for continuous even flow.

Highlights include an in-cab electric clutch control and engine shutoff, optional electric start with in-cab clutch, electronic servo-ac-



tuated choke and throttle control and a stainless steel adjustable flow control gate.

Circle 178 on reader service card

John Deere's Tricycler™ mulching attachments are available for more than 90 percent of the company's 30- to 60-inch mowers built in the last 15 years.

A 38-inch, three-blade mulching attachment is available to retrofit older lawn and garden tractors and a 38-inch commercial walk-behind mower. A 46-inch attachment will retrofit older tractors and older F525 residential front mowers. Also, a 60-inch Tricycler attachment is available for the new line of 400 Series tractors, compact utility tractors and F900 Series wide-area commercial mowers, and as a retrofit option for older tractors and front mowers.

Circle 179 on reader service card

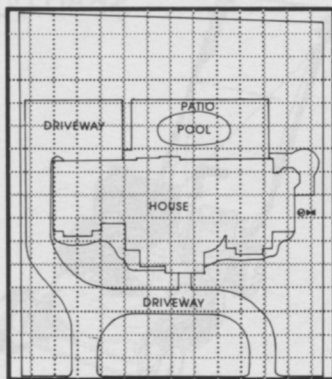
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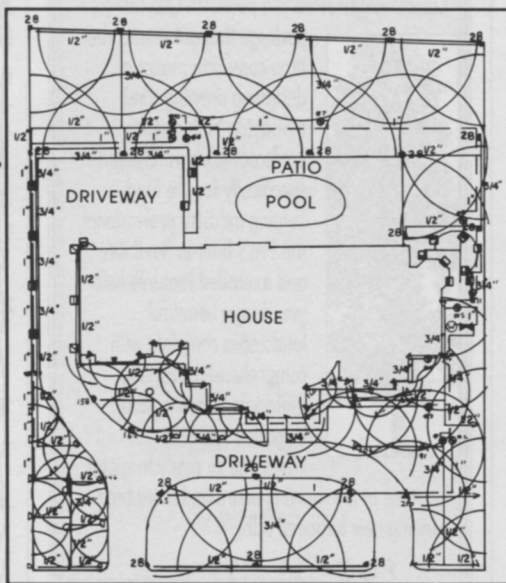
(continued on page 70)

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USE READER SERVICE #70



A confusing – often conflicting – web of local pesticide regulations is making landscapes unfriendly in municipalities across the country. Keeping pesticide regulation authority at the state and federal levels is a major goal of AAN.

How AAN is fighting the one pest worse than aphids, mites and Japanese beetles.



Left unchecked, they can be as devastating to your business landscape as an infestation of Japanese beetles. Especially if you do business in multiple jurisdictions.

What are they? They're conflicting local pesticide ordinances. And they can stymie your plans by prohibiting the use of necessary treatments in one

locale, while imposing unreasonable posting and notification in another.

AAN is leading the fight against an explosion of local pesticide ordinances. From your state capital to Washington. Already, AAN has prodded 36 states to prohibit local ordinances, and we're working to introduce a federal bill that will ensure your state's right to continue doing so.

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as other issues that affect your ability to do business: Such as proposed changes to the Noxious Weed Act, which threaten to restrict your use of non-native landscaping plants.

In short, AAN membership brings you the information you need to start, maintain and grow your business.

Why face an uncertain landscape alone? Join AAN. We're gaining ground for landscape professionals.



For more information on pesticide preemption and other issues important to landscape professionals — or to learn how you can become a member of AAN — tear out this ad, and mail it with your business card to: American Association of Nurserymen, 1250 I Street, N.W., Suite 500, Washington, DC 20005.

American Association of Nurserymen

USE READER SERVICE #24

New Product Showcase

(continued from page 68)

persing clippings and leaves from flower beds, lawns, patios, driveways and sidewalks, as well as vacuuming and mulching leaves and clippings that collect in gardens around flowers, plants and bushes.

The 2580 Super's 14-amp motor is billed as generating a 185-mph air velocity. The 2-speed variable air flow switch allows movement of up to 405 cubic feet of air per minute.

Circle 180 on reader service card

Calhoun Manufacturing's Trak Universal Replacement Bags for Chippers/Shredders and Chipper Vacs are constructed of heavy-duty, abrasion-resistant fabric which has been double stitched at the seams for extra protection.

The Trak replacement bags come in 2-, 4- and 5-bushel sizes. Each bag is packaged with an application chart and installation instructions.

The bag's positive locking system and extra wide opening provide a secure hold while attached to



the unit, and faster unloading when it is empty.

Circle 181 on reader service card

Course Air applicators deliver a stream of air to spread dry fertilizers, pesticides and seeds. An optional liquid system can be simultaneously applied.

The applicators' environmental shields eliminate chemical or fertilizer drift. Fertilizers with even the most delicate coatings can be applied without damage.

Course Air applicators help eliminate ballistic segregation and uneven patterns common to old-fashioned, spinner-type applicators.

Circle 182 on reader service card

The **Original Tractor Cab's** SunShade for rider mowers provides

excellent shade from the sun, especially during the hottest hours of the day. The canopy can be attached to various types of riding equipment to block harmful rays and help keep equipment operators cool in the summer heat.

Original Tractor Cab offers a range of SunShade models to fit almost every rider mower.

Circle 183 on reader service card

Stellar Industries' Shuttle hydraulic hook-lift loader (Model 190-24-52) can load and transport 20-foot to 24-foot long bodies and containers weighing up to 26 tons.

A range of interchangeable bodies and applications are possible with the Stellar loader. These include a 20-yard rubbish and debris container, 18-foot long dump body with tapered sides and a 20-foot long flatbed body.

Stellar offers also 15 smaller models for everything from a 3/4-ton pick-up to a tandem axle big rig, with lift capacities of 3,000, 5,000, 8,800, 12,000, 20,000, 32,000, and 40,000 pounds.

Circle 184 on reader service card

Classen adds the model SC-18 self-propelled 18-inch sod cutter to its line of turf equipment. The machine is powered by a 5.5 Honda engine and will cut sod up to a 2 1/2-inch depth.

This heavy-duty cutter is designed for golf course maintenance and landscaping.

Circle 185 on reader service card

Little Beaver offers three hydraulic handle combinations for its torque-free earth drills and augers. These include one- and two-person handles and anchor handles.

The one-person handle is mainly used for ordinary drilling tasks. Depending on soil conditions, one person can easily use up to an 8-inch auger and one extension.

The two-person handle, with four hand grips, is effective when drilling large diameter holes 6 feet, 12 feet or deeper if used with the aid of a tripod.

The auger/foundation handle, when combined with the standard high-torque 60-rpm motor, is ideal for light utility work.

Circle 186 on reader service card

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USE READER SERVICE #91

Breeding Tall Fescues

For Turf

Recent turf performance data for tall fescues demonstrate that some new dwarf varieties are ranking higher than initial turf-type varieties.

TALL FESCUE IS a cool-season grass, best adapted to the transition zone of the United States. This species can also do well in the Great Plains and Rocky Mountains when irrigated and is well adapted in many areas of California. The tall fescues require less frequent irrigation because of their deep rooting (3 to 4 feet) compared to perennial ryegrasses and Kentucky bluegrasses.

Alta and K-31 were the first varieties for forage and turf purposes. Both form a coarse, open turf with a rapid rate of vertical leaf elongation. Fawn was a later forage variety producing poorer turf quality than K-31; Chesapeake and Clemfine were developed after the above varieties, but produced a turf similar to K-31.

The first turf-type varieties of tall fescue were released in the early 1980s. Rebel came first, followed closely by Falcon, Olympic and Hounddog. These new varieties had lower growth habits, producing a denser, leafier turf that was more persistent than the earlier varieties. They were also known to have better overall disease resistance than the earlier forage types.

The next generation included Jaguar, Adventure, Rebel II, Bonanza, Cimarron, Apache, Arid and Mustang. These varieties showed

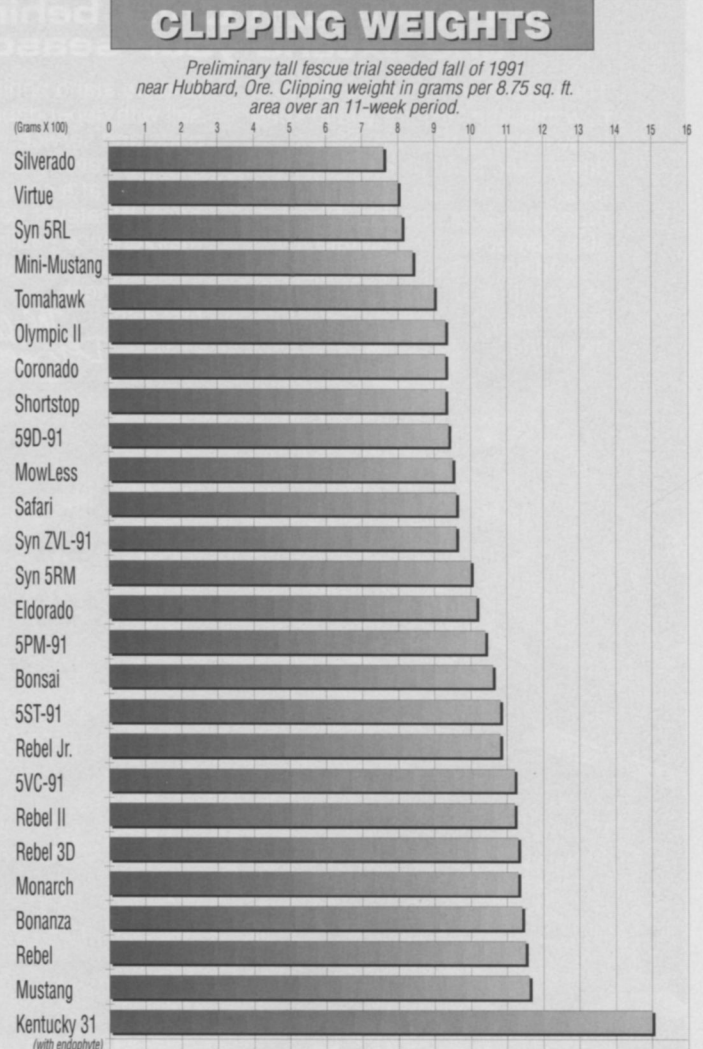
improved color and density, with some improvements in disease resistance (brown patch, leaf spot and crown rust). Others more recently developed for disease resistance include Amigo, Safari, Shenandoah, Winchester and Olympic II.

In the late 80s and early 90s, new varieties were released with more dwarf growth habits and even better density and color. Examples include Trailblazer I & II, Silverado, Eldorado, Murietta, Rebel Jr., Monarch, Tomahawk, Crewcut, Shortstop and Bonsai.

In current turfgrass breeding programs, several characteristics play crucial roles in the development of varieties, including disease and insect resistance, improved turf performance, shade tolerance, drought tolerance, traffic tolerance, pesticide tolerance and low maintenance tolerance. This article will discuss areas that have made the most progress in recent years.

In July 1991, Pure Seed Testing started a breeding and evaluation research farm in Rolesville, N.C., to develop tall fescues with improved resistance to brown patch.

Brown patch, incited by the fungus *Rhizoctonia solani*, is the most serious foliar disease of tall fescue in the southeastern U.S. The fungus thrives under warm humid conditions and produces large, brown,



unsightly areas in diseased turf.

The disease is easily controlled by many contact fungicides. Since tall fescue is often used in areas that receive lower maintenance, however, budgets seldom allow for frequent preventive fungicide applications necessary for brown patch control. Therefore, using tall fescue cultivars with genetic resistance is the best control method.

Tall fescue, native to cool regions of Europe, evolved without selection pressure from diseases common in warm, humid conditions. Although numerous improvements have been made, some resistance to brown patch still appears in many tall fescue cultivars.

Much of the tall fescue germplasm used in breeding programs today are taken from cool regions. Addition-

ally, brown patch is not a serious disease in most tall fescue breeding programs in the Pacific Northwest. Therefore, a breeding program was initiated in the Southeast, where selection can be conducted under heavy disease pressure.

We screened tall fescues for resistance to brown patch both in turf plots and spaced-plant nurseries, where we can evaluate individual genotypes. Tall fescues are also collected from old turfs throughout the Southeast, where they tend to have better disease resistance and other beneficial characteristics.

Improving specific turfgrass characteristics takes a long time. Disease resistance and other

traits often are controlled by groups of genes and take several cycles of selection and recombination to improve. New turfgrasses must also be evaluated for a period of time to ensure that they maintain the desired characteristics for which they were developed. University trials, such as those at NCSU, and the National Turfgrass Evaluation Program, are invaluable sources of testing for turfgrass breeders.

ADAPTATION. Turf performance data from California, New Jersey, Oregon and North Carolina, based on color, uniformity, density and mowing quality, illustrates that some of the new

dwarf varieties are ranking higher than the initial turf-type varieties. The best performers include Rebel Jr., Monarch, Silverado, Tomahawk, Coronado, Eldorado, Safari, Virtue and Jaguar III.

Producing fewer clippings is considered a benefit of slower-growing, dwarf turf-type tall fescues, since the cost of disposing clippings is increasing. Subsequently, the lawn and landscape industry has called for tall fescues with a slower vertical growth rate.

Pure Seed began a clipping study of 25 tall fescue varieties March 6, 1992, to determine clipping yields under Western Oregon conditions. Turf plots were mowed with a rotary mower once a week for 11 weeks, and the clippings from each plot were collected and weighed.

Total clippings for 11 weeks of growth ranged from 756 grams to 1,503 grams for 8.75 square feet. This calculates out to 8,264 pounds of clippings for Silverado vs. 16,478 pounds of K-31 per acre. Silverado, the slowest growing variety, provided less than half the clippings of K-31. Virtue, 5RL, Mini-Mustang, Tomahawk, Olympic II, Coronado, Shortstop, 59D and Mowless also had fewer clippings.

Vertical growth measurements were taken April 15, 1993, on a tall fescue seed yield trial planted fall 1992. Bonsai, Coronado, Eldorado, Cochise, Rebel Jr., Silverado, Pixie, Rebel 3D and Aztec were the named varieties with less growth through the winter.

Pick 90-6, Pick RB88, PST-5PM, PST-5LX, 59D and MB-24-92 were the experimentals showing the least growth.

SHADE. In the past several years, many turf-type tall fescues have been released with improved performance in shade. Turf-type tall fescues are frequently used for shade in the transition zone of the United States (A broad area that stretches from Maryland and Virginia all the way to Northern Texas) due to the poor shade tolerance of bermudagrass.

In a shade trial in Oregon under green ash trees, the dwarf turf-type varieties are performing best. They are maintaining a finer leaf texture with less elongation than the taller varieties developed earlier. New experimentals ZML, ZVL, 5RM, 59D, 5VC and Coronado were the top performing varieties after one year with the darkest color. The commercial varieties that do well in shade are Eldorado, Safari, Silverado, Virtue, Bonsai and Tomahawk.

Once a turfgrass cultivar is evaluated, a process which may take five or more years, seed of the cultivar can be produced for sale. The first generation of seed is produced by the inventor of the cultivar and is called breeder seed. Once breeder seed is harvested it is called foundation seed. Foundation seed can be planted to produce certified seed, which is sold to the consumer. Nearly all cool-season turfgrass seed produced in this country is grown in Oregon, Washington and Idaho. ■

This article was prepared by Crystal Fricker, Melodee Fraser and W.A. Meyer of Turf-Seed, Inc., Pure Seed Testing, Inc.

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The Irrigation Association

A large, multi-story building with a fountain in the foreground. The building has a classical architectural style with a prominent entrance and a flagpole on the roof. The fountain in the foreground has several jets of water spraying upwards. The sky is blue with some clouds.

IRRIGATION
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DIAGNOSING IRRIGATION ILLS

Like blood pressure, irrigation system pressure should be checked periodically; more often with age.

By Larry Keesen

CONTROLLING PRESSURE, solving electrical problems and pump maintenance seem to be the least understood topics in the irrigation maintenance and contracting industry. The information I present here is not all inclusive, but will get you started in the right direction. If you have additional ideas, please let me know.

Proper irrigation system operating pressure is of paramount importance if an operator wants to control costs. Subsequently, system operating pressure must be checked annually. If a pump is used, it should be checked monthly. Visible changes in water pressure may appear in potable water supplies and pump systems because of increased demand, equipment deterioration and/or pressure changes made by water purveyors.

Once it's determined that a system is operating at the proper pressure, obtain operating pressure readings at several points in the system. Turn on station number one and test the operating pressure at the pump or at the downstream side of the pressure reducing valve and/or the backflow preventer. Also test the pressure downstream of each electric zone control valve or at one of the sprinkler heads within the zone.

Log the time, date, pressure and location for future reference. Repeat this test for each zone in the system. Also note the static water pressure when the system is off.

An easy way to check the operating pressure is to install schrader valves downstream of the pressure-reducing valve and each zone control valve. Attach a quick-connect device with hose and gauge and read the pressure. Other methods of checking operating pressure can be performed at the head using a pitot tube/pressure gauge for rotor heads and a tee/pressure gauge inserted under the pop-up spray head nozzle.

Once the pressure data is logged it can provide a reference for proper operating



pressure within the system. Periodic pressure checks can reveal if the pipelines are leaking and whether pressure reducing valves, backflow preventers, control valves, sprinkler heads and pumps are operating properly. System pressure variances can pinpoint problems as well as save time.

If the source pressure remains unchanged and the pressure within the zone has changed more than 5 percent to 10 percent, try to isolate the problem with additional pressure tests throughout the system. Lower operating pressure at the zone might indicate a leak, worn pump impellor or a partially closed flow control at the zone valve. Higher operating pressure, on the other hand,

could be the indication of a plugged nozzle or pipe, a defective pressure reducing valve or an increased pressure from the water purveyor.

Pressure testing is a great diagnostic tool for troubleshooting the irrigation system. I have identified faulty backflow preventers and pressure reducing valves using these methods. Remember, irrigation system pressure is like blood pressure: both need to be checked periodically; more often with age.

ELECTRONICS. To test the electronics in the irrigation system use a volt-ohmmeter capable of reading 120-volt AC (alternating current), 24 volt AC and 0 to 1 megaohm resistance.



Testing electronics in an irrigation system takes expertise, patience and often a little luck. In this photo, there is a lateral line leak at 140 psi.

Start by testing the power supply for the irrigation controller. Using a voltmeter, the reading should be between 105 and 125 volts. If no power is measured, check the circuit breaker or fuse. If the power source is good, check the circuit breaker or fuse in the controller and reset or replace as required.

Next check the controller's 24-volt output at the wire connections to the controller. Turn on station number

one and use the voltmeter to test the voltage between station one and the common connection or wire. The voltage is usually in the 24- to 30-volt range as most valves require 24 volts.

If 24-volt power is not present, the problem is most likely located in the controller. Check the backup battery for power and verify the output voltage of the 110V/24V transformer. The range should be 24 to 48 volts at the output or secondary side of the transformer. If power is above or below this range, turn the power off and measure the resistance across the primary or 110-volt side of the transformer.

The transformer is bad if the ohmmeter indicates 0 ohms resistance. If the station

terminals show no output voltage — and unless you're an electronic genius — send it to the distributor or factory authorized service center.

If the proper voltage is measured, the problem is either the solenoid on the control valve or the wiring between the controller and the valve.

If all control valves quit at the same time it could be a broken common wire or a cut in all of the hot wires, although it is unlikely. When wire insulation is cut or damaged and the wire makes contact with another, the wire is shorted. If the hot wire for one valve is shorted to another, both valves may operate at the same time.

When a hot and common wire are shorted, the breaker or fuse will blow. Additionally, damaged wires in wet soil that are not in direct contact will ground and cause the same problem as shorted wires.

The solenoid and field wiring can be tested from the controller using an ohmmeter. Disconnect the common wire from the controller and attach to one lead from the ohmmeter. Touch the other lead to each station terminal and note the readings.

Most good solenoids will measure between 20 and 60 ohms; a shorted solenoid will read 0 to 5 ohms; and an open solenoid will read higher than 60 ohms — usually at infinity. Replace the solenoid if it reads shorted or open. Two valves that are wired to operate simultaneously will have approximately half the resistance of a single solenoid or between 10 and 30 ohms.

If the solenoid is good, check the power at the valve with a voltmeter. The

reading should be 24 volts or higher. If voltage is good, look for a mechanical problem in the control valve. If voltage is low or non-existent, than it's probably a wiring problem between the controller and the valve.

To test for shorted wiring, disconnect the hot and common wires from the controller and the solenoid. Use the ohmmeter to measure the resistance between the hot and common wires. If the resistance is low, a short is present. To detect a ground fault, test the resistance between each wire and an earth ground. If the reading is under 100 ohms, then a ground fault is indicated.

Check for broken wires and bad connectors by disconnecting both wires at the control valve and by pushing bare ends into the soil to maintain an earth ground. At the controller, disconnect both wires and test the voltage from the hot and common wires to an earth ground. The ohmmeter will show a low resistance if the wires are good.

The easiest way to locate a shorted wire or connector is with a ground fault locator. (Most irrigation equipment distributors sell and rent these devices.)

PUMP MAINTENANCE. Once a pump quits, the landscape turns brown, clients scream and you generally lose the contract. Proper pump maintenance will ensure fewer headaches, lower operating costs, higher efficiency and a longer lifespan.

The pump should be inspected at regular intervals depending on total weekly operating hours. Pumps are a major investment that can result in higher energy costs and lower water

pressure if not properly maintained. Efficiency losses due to lack of lubricant and wear will result in increased costs and a shorter pump life.

A regular maintenance check should include an inspection of the pump and the surrounding room or enclosure. Check for water and oil leaks on the floor, then turn on the pump and check again. After operating for 30 minutes or more, feel the pump and motor for operating temperature and vibrations. Check for oil and water leaks. Is the



An electrician should periodically check the control panel. At left is a defective terminal strip at 110-volt connection.

electrical odor normal? Is the pump running hotter than usual?

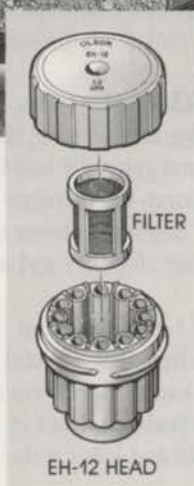
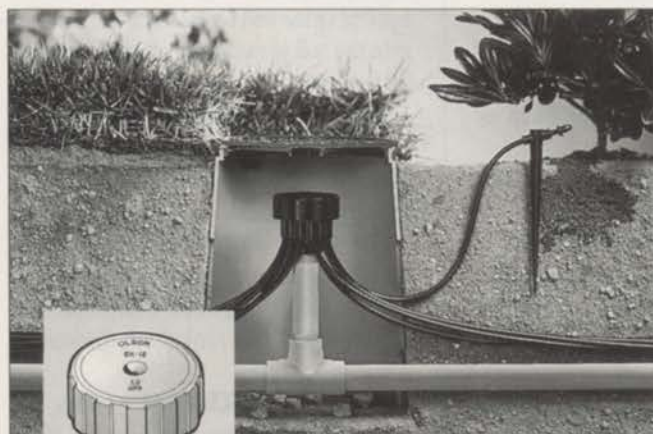
If the pump motor has Zerk lubrication fittings, it will require regular lubrication. Motors that are 5 h.p. and smaller generally have sealed bearings that don't require lubrication. Unless otherwise recommended by a motor or

pump manufacturer, the proper lubricant is EP-2.

To lubricate electric motor bearings turn off the pump, remove the drain grease plug and with a grease gun, pump the lubricant into the fitting until it comes out the drain plug. Leave the drain plug open for a few days to allow the excess lubricant to drain out.

The bearings will run unusually hot during the first 15 to 20 minutes of operation after lubrication and later return to normal operating temperature.

Pumps that are frame-mounted (with a separate motor) are normally greased through the bearing cover, and the excess drains out the bottom or through a



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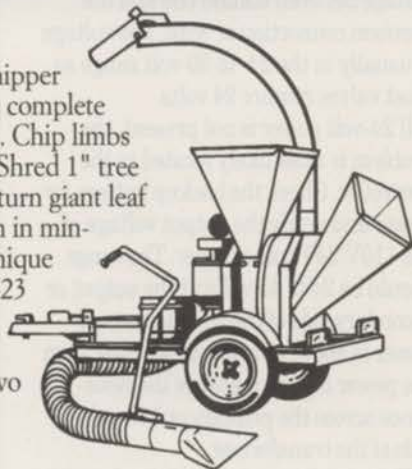


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drain plug at the bottom of the frame. Check and clean the bug screens installed on the motor vents.

Make sure the pump housing is well ventilated. A hot room will reduce the motor life by 50 percent for every 18 degrees in temperature above the motor nameplate rating.

CHECK FOR VIBRATIONS. A vibration could be the start of a bearing failure or a misaligned drive coupling or connecting pipe. But while a noise in the pump might indicate a bearing failure. If the bearing is going bad, replace it immediately to avoid additional damage.

If a diagnosis cannot be made, call in

experts for help instead of waiting for additional damage. Have an electrician check the pump control panel periodically for worn contacts and loose connections.

Next month we will look at some of the sensors that are used with irrigation systems and how they can make life easier.

The author is vice president of Keesen Water Management, 10700 E. Bethany Dr., Suite 103, Aurora, CO 80014.



IRRIGATION QUESTIONS

1. What is an easy way to check the operating pressure in an irrigation system?

2. What could cause higher operating pressure in the system?

3. Can the solenoid and field wiring be tested from the controller?

4. What is the easiest way to locate a shorted wire or connector?

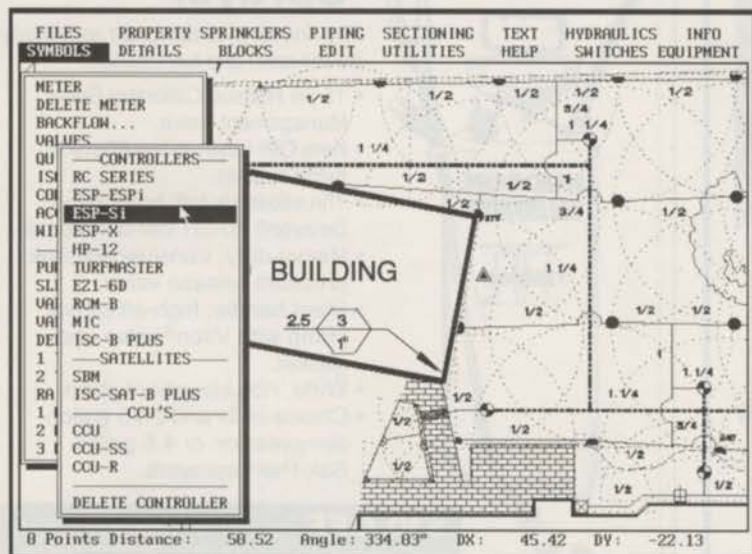
5. How does temperature affect pump operation?

6. What can cause the pump to vibrate?

Answers appear on page 93 of November LLM.

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Compost Digest

STATE INHIBITS SMALL-SCALE YARD WASTE COMPOSTING

A STATE LAW in Maryland prohibits most landscape contractors from accepting yard waste compost at their facilities. But a county government enforcement agency, bent on changing the law, willingly looks the other way when it comes across such a site, according to a program specialist for the agency.

The law, aimed at regulating large compost facilities, sets such strict permitting standards that the average, small composting facility can't begin to meet them, according to Joe Keyser, senior program specialist for the Montgomery County Department of Environmental Protection in Maryland.

"It is illegal throughout the state of Maryland to take in yard waste for composting at a site without the proper permit. It's considered land-filling," Keyser said. "If you're a nursery and you've got stuff being generated, that's fine. But if you're going out and cutting lawns and bringing clippings back to your site,

technically you cannot compost it. It's a violation of the state's permitting process. We're trying to make permitting easier."

Maryland law does not prohibit landscape

contractors from composting their own yard waste material, however, or from setting up facilities on clients' properties.

Keyser acknowledges that many landscape contractors in the county already accept outside compost material. "It may not be lawful but 20 to 30 sites have done that already... We want to be able to work out the regulations so that as long as they're doing it properly, we'd like to keep them going."

Maryland began prohibiting lawn maintenance contractors from diverting grass clippings to landfill in September, although the regulation won't be strictly enforced until next year, Keyser said.

Montgomery County, which has a population of 800,000, faces a Jan. 1 landfill ban for homeowners. Officials

Compost education is needed not only to explain the proper process, but the benefits of compost to the landscape.



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remain uncertain how to handle the county's estimated 56,000 tons of grass clippings. "We don't want that at the county composting facility," Keyser said.

Agricultural sites can accept yard waste for composting if the end product is applied directly to the field. Keyser hopes to set up a system to divert yard waste to those facilities, rather than dumping it all on the county facility.

"What I'm looking to do is formalize a system - identify sites, work up nutrient management plans for the various sites and then start utilizing them as a diversionary measure," he explained.

Meanwhile, the department is conducting training seminars to help lawn care professionals understand the landfilling and composting regulations, and to aid them in devising marketing strategies to get clients to accept grass recycling or composting bins on their properties. The county plans to develop a pilot program with the Landscape Contractors Association, MD-DC-VA, to allow members to purchase "upscale" compost bins at low cost.

Keyser said he's heard numerous complaints from LCA members who have failed to convince clients to consider grass recycling.

"In part that is because there hasn't been a change in the pricing structure of their ser-

CLIPPINGS GONE BAD MAY BE LANDFILLED

MICHIGAN and other states are considering giving composting facility operators the right to refuse "odiferous" grass clippings that have begun to decompose, and possibly divert them to landfills, according to the Michigan Department of Natural Resources.

Compost facility operators are complaining about receiving loads of grass that have gone badly anaerobic, particularly in spring. Michigan is considering allowing such grass to be landfilled, but would likely charge a fee to discourage flagrant dumping, said John McCabe of Michigan's DNR.

New York state has proposed yard waste regulations that would allow composters to divert rotting grass clippings to landfill. The regulations would allow cities to assess how much grass facilities could accept.

Rather than landfill the "bad" clippings, some communities are considering divvying loads among several small composting operations instead of big one, thus cutting down the potential for odor. Experiments are also underway at Purdue University and other facilities to spread clippings directly on land in manure spreaders.

VICES. We want to help lawn care professionals put together a marketing package telling customers that 'green' lawn care may cost less. If we can tie that into getting them a bin for the occasions when they really have to catch the grass clippings, that further helps them sell the total environmental package to the consumer."

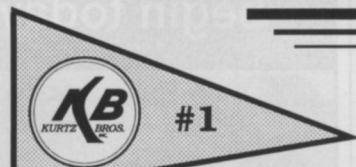
The LCA frequently works with Montgomery County trying to establish viable composting and grass recycling programs.

The county's proposed program "would be wonderful for our members. We would be thrilled to death," said Beth Palys, LCA's executive director.

Keyser, concerned about getting contractors to attend the workshops, is considering offering some type of incentive program.

"It may be something they can take with them from the workshop and be able to use it as a discount at one of the distributors," Keyser said. ■

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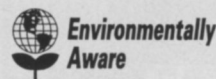
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People

TOD WINDSOR joined Rain Bird's commercial division as product manager in charge of new product development for the company's line of commercial irrigation controllers, as well as the improvement and maintenance of the firm's existing product line.

Garden Way appointed **Ellen Hotz** to the new position of vice president of product and brand marketing, and **Brian Miller** as product manager for the company's line of chipper/shredders, chipper/vacs and snow throwers.

Pest Management Supply named **Dr. Don Collins** director of sales for its weather intelligence division, responsible for introducing the benefits of on-site weather monitoring for irrigation and insect, disease and weed management to golf course superintendents, turf managers and pest management professionals.

Kenneth Peters joined ISK Biotech as formulations superintendent. Peters was previously market development manager with Thomas Packaging Corp.

ISK also named **Thomas Woods** industrial biocides technical manager; **Michel deVleeschauwer** industrial biocides business manager at ISK Biotech



Nelson



Bruton

Europe Ltd.; and **Catherine Piot** sales administrator in France. Woods previously served as manager of business and corporate development; DeVleeschauwer served as contract manufacturing manager; and Piot served as assistant to the director for external affairs.

Medalist America Turfgrass Seed promoted **Eric Nelson**, Ph.D., to director of turfgrass research and product development. Nelson joined Medalist in 1989 as director of turfgrass research.

Monica Wessel, formerly marketing communications manager for Reemay, was promoted to international sales manager of the International Business Unit. **David Molesworth**, formerly a sales representative for Reemay's Typar HouseWrap

product, moved into the marketing communications manager position.

Dixon Industries appointed **Conard Kruger** territory manager, responsible for working with Dixon dealers throughout Virginia.

Weather-matic appointed **Randal Bruton** regional sales manager for the company's south-central region, including north, east and west Texas, Oklahoma and New Mexico.

Stahl announced the following appointments: **Jim Kraschinsky** to director of sales and marketing, responsible for OEM and distributor sales, market development, new products, advertising and customer service; **Tim Williams** to West Coast regional manager, in charge of sales and distribution in California, Oregon, Washington, Nevada, Arizona, Utah, Idaho, Montana, Wyoming and Canada; **Tom Cole** to Central Midwest regional manager and product manager of Stahlwart Cranes and Crane Body Systems, responsible for coordinating product development, marketing and distribution nationwide; **Joseph Verdini** to customer service manager for Stahl and its Arbortech division; and **Don Rose** as inside sales representative for Arbortech, responsible for sales and customer service. ■



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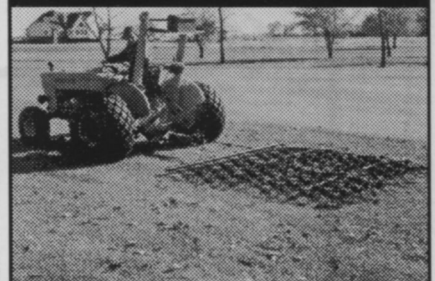
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Product Profile

PLANT GROWTH REGULATORS OFFER NEW WAY TO MANAGE TURF

ALTHOUGH PLANT growth regulators aren't new to the lawn and landscape service industry, their acceptance by turf managers has been gradual. It appears now, however, that their time has finally arrived.

Recent PGRs introduced to the market have shown turf managers that the products work well and may provide a new source of revenue, and result in higher profit potential for their firms.

Dale Amstutz, owner of Northern Lawns, Omaha, Neb., views PGRs as a time saver and a way to position his company as a market leader.

"PGRs allow us to offer innovation to our customers," Amstutz said. "We can offer clipping reduction and time savings to homeowners. Plus, as an add-on service, we can set people up with vacation treatments so they don't have to worry about coming back to a jungle after a week or two away from home."

In simplest terms, PGRs are applied to turf



PGRs can offer significant growth and clipping reduction.

to slow the growth rate, while maintaining healthy turf. Unfortunately, early PGRs provided inconsistent and less-than-satisfactory results. Turf damage from PGRs in the 1950s and 1960s generally outweighed any growth management benefits. The result was skittishness among potential users.

The introduction of better-performing PGRs in the mid-1980s sparked some turf

managers' interest in the products for high maintenance turf areas such as golf courses, commercial properties, parks and home lawns. Products introduced in the 1990s have shown even greater efficacy.

CONTROLLING GROWTH. PGRs fall into two major categories. Type I PGRs are plant cell growth inhibitors and suppressors, also known as mitotic toxicants. They inhibit plant growth by suppressing cell division. Examples of Type I PGRs include Embark[®] and Limit[®]. Type II PGRs

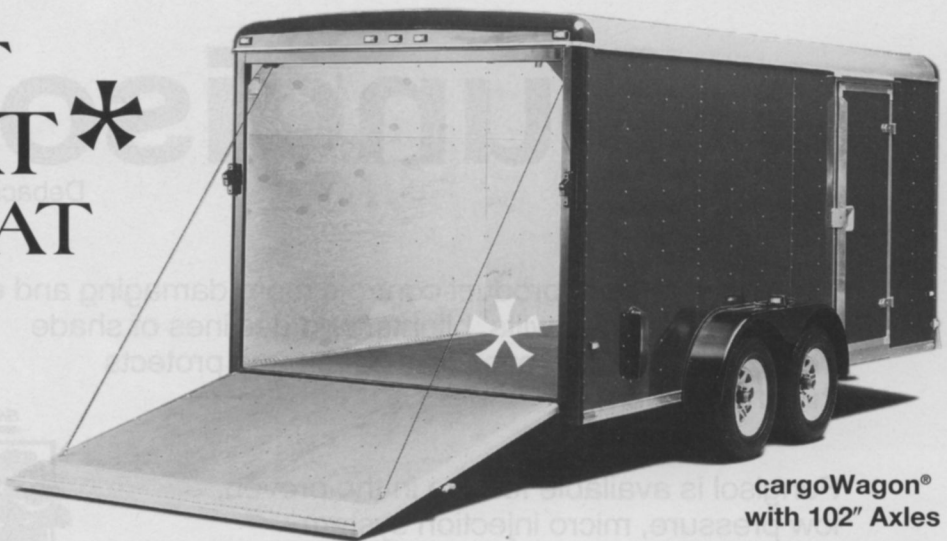
inhibit growth by reducing gibberellic acid (GA) biosynthesis. Products in this group include Cutless[®], TGR[®] and the newest PGR, Primo[®].

Type II PGRs slow the elongation of cells and shorten stem and leaf blades. Turf continues to grow, yet all plant tissues that develop after application are normal, but do not reach full size.

Type II products vary in their capacity to

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interrupt GA biosynthesis. For example, Primo inhibits GA biosynthesis late in the process, which limits the potential for "escape," or ineffectiveness. If the process is affected earlier, the PGR may interrupt other beneficial plant processes and/or cause inconsistent results.

Another difference is how PGRs enter turf plants. Some are foliar absorbed and do not require watering in; they are absorbed directly into the leaf upon application. Primo falls into this category and is rainfast after one hour. Root-absorbed PGRs may need drenching from rain or irrigation after application.

Depending on individual product labels, PGRs may be applied to a wide range of warm- and cool-season turf species in most locations such as business complexes, residential areas, parks, recreational centers, difficult-to-mow areas and high-liability areas where cars, windows, pedestrians or homes may be harmed with flying debris.

For successful PGR use, applications should be made to healthy, actively growing turf that is not under stress. For cool-season turf, avoid applying during hot, dry periods of summer or early fall, when growth slows naturally.

On warm-season turf, applications can be made anytime after spring green-up until fall dormancy.

SURPRISING BENEFITS. Turf growth reduction typically heads the list of PGR benefits. But turf managers should consider a number of other key advantages, according to Dr. L. Douglas Houseworth, technical support manager, Ciba Turf & Ornamental Products, manufacturer of Primo.

"Reduced clippings, more uniform turf height, lengthened periods between mowings and enhanced turf density and appearance are other key benefits," Houseworth said.

Although there are core similarities, PGR benefits vary by product. For example, Houseworth noted that Primo offers approximately 50 percent growth reduction and 50 percent clipping reduction when applied to healthy turf at standard rates. It also has no negative effects on ornamental plants or trees and may be used on all major warm- and cool-season turf species.

"This means turf managers can apply Primo without fear of injuring surrounding desirable vegetation," Houseworth explained. "They also can reduce their mowing time and clipping disposal expenses, and have greater mowing flexibility when bad weather hinders their schedules."

ADDED REVENUE. New technology may mean new business opportunities for lawn service and mowing management companies. Whether companies offer chemical applications or mowing services (or both), reduced mowing time, fewer clippings to dispose of, greater mowing flexibility and reduced equipment wear and tear will help their bottom line.

Amstutz, who uses Primo in his operation, saw several business advantages for using the product. "The primary benefits for us on properties that we mow are reduced trimming and mowing," he said. "We save time that can be spent on other properties or generating new business."

PGR costs may vary from approximately \$10 to \$480 per acre, depending on usage. The desired results from PGRs determine the rate that is needed and the cost per acre. For example, when a PGR is used for trimming and edging, a higher rate is necessary. But when growth control over an entire lawn is the purpose, generally a much lower rate may be used. In both cases, PGRs are very cost effective when the reduced labor and other savings are weighed.

"Whenever looking at the cost of PGRs, consider all of the variables," Houseworth said. "Weigh the savings in overtime, labor, clipping disposal, equipment wear-and-tear and new-client revenue against the product's cost per acre to determine what the true net cost will be."

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Calendar

DEC. 1-3 40th Rocky Mountain Turf Conference and Trade Show, Currigan Hall, Denver, Colo. Contact: Rocky Mountain Regional Turfgrass Association, P.O. Box 29, Franktown, CO 80116; 303/688-3440.

DEC. 5-9 CSMA Annual Meeting, Fort Lauderdale, Fla. Contact: Chemical Specialties Manufacturers Association, 1913 Eye St., NW, Washington, DC 20006; 202/872-8110.

DEC. 6-9 27th Annual Ohio Turfgrass Foundation Conference and Trade Show, Columbus. Contact: Phyllis Selby, OTF, 2021 Coffey Road, Columbus, OH 43210; 614/292-2601.

DEC. 7-9 Georgia Turfgrass Conference and Show, Georgia International Convention and Trade Center, College Park. Contact: Georgia Turfgrass Association, 5198 Ross Road, Acworth, GA 30102; 404/975-4123.

DEC. 14 Roadside and Right of Way Vegetation Management short course, New Brunswick, N.J. Contact: Office of Continuing Education, Cook College, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903; 908/932-9271.

DEC. 14-16 Turfgrass and Ornamental Seminar, Purdue University Stewart Center, West Lafayette, Ind. Contact: Midwest Regional Turf Foundation, P.O. Box 6051, Lafayette, IN 47903-6051; 317/494-8039.

DEC. 17 Pesticide Safety for Landscape Contractors short course, New Brunswick, N.J. Contact: Office of Continuing Education, Cook College, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903; 908/932-9271.

JAN. 2-7 Advanced Landscape Plant IPM Short Course, University of Maryland, College Park. Advanced Turfgrass IPM Short Course to be held Jan. 10-13. Pre-registration required. Contact: David Laughlin, Dept. of Entomology, Symons Hall, University of Maryland, College Park, MD 20742; 301/405-7665.

JAN. 3-5 Wisconsin Turfgrass & Green Industry Expo. Holiday Inn-West, Madison, Wis. Co-sponsored by University of Wisconsin-Extension and the Wisconsin Turfgrass Association. Contact: Dr. Frank Rossi, 608/262-1490.

JAN. 3-14 Professional Turfgrass and Landscape Management With Selected

Topics in Commercial, Residential and Utility Turfgrass, New Brunswick, N.J. Contact: Office of Continuing Professional Education, Cook College, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903; 908/932-9271.

JAN. 4-7 Midwest Greenscape Expo, Indiana Convention Center, Indianapolis, Ind. Co-sponsored by the Indiana Association of Nurserymen and the Midwest Regional Turfgrass Foundation. Contact: IAN, 317/497-1100.

JAN. 4-FEB. 15 Intermediate Landscape design course, New Brunswick, N.J. Class held every Tuesday. Contact: Office of Continuing Professional Education, Cook College, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903; 908/932-9271.

JAN. 5-7 Second Annual Turfgrass Management/Park Maintenance Training School, Albany, N.Y. Contact: New York State Turfgrass Association, 800/873-TURF, 518/783-1229.

JAN. 7-8 Pest Control Conference, Wyndham Hotel, San Antonio, Texas. Other dates and locations include Jan. 21-22, Houston, Texas;



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Statement required by the Act of October 23, 1962. Section 4369, Title 39, United States Code, showing the ownership of Lawn and Landscape Maintenance published monthly at 4012 Bridge Avenue, Cleveland, Ohio 44113-3320 Cuyahoga County.

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I certify that the statements made by me above are correct and complete.

Richard J.W. Foster, President

Jan. 25-26, Dallas/Fort Worth; Feb. 4-5, Oklahoma City, Okla. Contact: Chemicals & Equipment Co., P.O. Box 540428, Dallas, TX 75354-0428; 214/357-5741 or 800/345-9387.

JAN. 10-13 Eastern PA Turf Conference & Trade Show, Valley Forge Convention Center, King of Prussia, Pa. Contact: Scott Guiser, Bucks Cty. Cooperative Extension, 215/345-3283, or P.T.C., P.O. Box 1078, Lemont, PA 16851-1078; 814/863-3475.

JAN. 10-21 Turfgrass Management Short Course, Cornell University, Ithaca, N.Y. Contact: Joann Gruttadaurio, 607/255-1792.

JAN. 11-13 Eastern Regional Nurserymen's Association Trade Show, The Concord Resort Hotel, Kiamesha Lake, N.Y. Contact: ERNA, 203/872-2095.

JAN. 12 Landscape & Nursery Expo/94, Sacramento Community Convention Center, California. Contact: Landscape and Nursery Expo, P.O. Box 160244, Sacramento, CA 95816-0244; 916/442-4470.

JAN. 18-20 64th Annual Michigan Turfgrass Conference, Holiday Inn-South Convention Center, Lansing, Mich. Contact: Kay Patrick, P.O. Box 80071, Lansing, MI

48908; 517/321-1660.

JAN. 18-20 Mid-America Green Industry Convention, Hilton Plaza Inn, Kansas City, Mo. Contact: PLCAMA, P.O. Box 35184, Kansas City, MO 64134; 816/765-7616.

JAN. 19 18th Annual Landscape Contractors, Turfgrass Management and Grounds Maintenance Conference with Trade Show, Sheraton-Columbia, South Carolina. Contact: South Carolina Landscape and Turfgrass Association, P.O. Box 325, Clemson, SC 29633; 803/656-2459.

JAN. 19 Professional Turf and Landscape Conference, Westchester County Center, White Plains, N.Y. Contact: Carol Mueller, 914/636-2875.

JAN. 20-22 Annual Mid-America Horticultural Trade Show, Hyatt Regency, Chicago. Contact: Mid-Am Trade Show, 1000 N. Rand Road, Suite 214, Wauconda, IL 60084; 708/526-2010.

JAN. 20-22 Idaho Horticultural Convention and Trade Show, Boise Centre on the Grove, Boise. Contact: Idaho Nursery Association, P.O. Box 190107, Boise, ID 83719; 208/344-7111.

JAN. 20-22 ASPA Midwinter Conference and Exposition, Wyndham Paradise Valley Resort, Scottsdale, Ariz. Contact: Tom Ford, American Sod Producers Association, 708/705-9898.

JAN. 23-26 4th Annual ALCA Executive Forum, Hyatt Regency Waikoloa, Hawaii. Contact: Associated Landscape Contractors of America, 12200 Sunrise Valley Drive, Suite 150, Reston, VA 22091; 703/620-6363.

JAN. 24-26 CENTS and The Ohio State University Short Course, Columbus Convention Center. Contact: Ohio Nurserymen's Association, 2021 E. Dublin-Granville Road, Columbus, OH 43229; 614/431-2452.

JAN. 24-27 Professional Horticulture Conference of Virginia, Virginia Beach Pavilion and Radisson Hotel, Virginia Beach. Contact: Tom Tracy or Polly Carden, PHCV, P.O. Box 64446, Virginia Beach, VA 23467; 804/523-4734.

JAN. 31-FEB. 7 International Golf Course Show, Dallas Convention Center, Dallas. Contact: Golf Course Superintendents Association of America public relations office, 913/832-4470. ■

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USE READER SERVICE #87

Cover Story

(continued from page 27)

Canadian president of PLCAA and a leading businessman. His quiet, unassuming nature contributes to his reputation as a trusted confidant.

DRIVING FORCE. We would be remiss not to mention the industry consultants who have strived to instill professionalism through their various areas of expertise. Either one-on-one or moderating industry roundtables, this group has given a lot to those willing to listen.

CONSULTANTS

PHIL CHRISTIAN, *pdc consultants*

LARRY KEESEN, *Keesen Water Management*

JIM PERRONE, *Perrone-Ambrose Assoc.*

FRANK ROSS, *Ross, Payne & Assoc.*

CHARLES VANDERKOOI

BRIAN VINCHESI, *Irrigation Consulting & Engineering*

WASHINGTON PULSE. Every leader plays a role in the legislative activities of his or her industry, but the following have an extraordinary ability to stay abreast of crucial matters.

LEGISLATIVE

BEN BOLUSKY, *AAN*

DAVID CROW, *DC Legislative & Regulatory Services*

TOM DELANEY, *PLCAA*

ALLEN JAMES, *RISE*

Keeping an eye on the legislative arena has been increasingly important in recent years and will continue to be so. First it was Sen. Joseph Lieberman, D-Conn. With recent changes in the U.S. Environmental Protection Agency and the general philosophy of the Clinton Administration, however, the lawn and landscape industry will be looking to these leaders to keep them abreast of changes.

The author is Editor/Co-Publisher of *Lawn & Landscape Maintenance* magazine.

ON BEING A LEADER

YOU DON'T have to be a Lee Iacocca or a Sam Walton to lead a successful team. You can take the first critical step to motivating your employees to peak performance by sharing an inspired vision. How? By developing a clearly defined mission statement. Every successful team has a common denominator...a clearly defined goal. Communicating the goal is the key. Even if you know what you are trying to accomplish, your employees can't read your mind. Also, unless you have a clearly defined mission and vision, odds are you aren't really sure of what the goal is yourself.

Answer these three questions to develop a simple but effective mission statement: What kind of business are you in? What values are important to you? What is your vision?

The answer to these questions can be turned into three short paragraphs. The first paragraph should describe what you sell and what markets and customers you serve. The second paragraph should include a definition of values you consider important to your success such as quality, integrity and customer service. The last paragraph should paint a picture of the future...where you will be as you enter the 21st century. This vision should be positive and uplifting. It is the vision that will incite people to action. It builds a sense of unity and dependence on one another to achieve the goal.

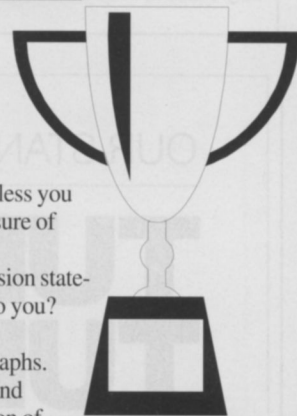
The next step is essential if you don't want the creation of your mission and vision statement to become an exercise in futility. Unfortunately, most mission statements are sterile documents that end up on the shelf. Make your vision a war cry. Open meetings by reading it. Frame it and hang it on the walls of every office and work area. People need to know that your vision is real. Make it tangible.

Don't wait for one of your employees to tap you on the shoulder and ask, "Where are we going?" Lindsay Manufacturing Inc., has been named as one of the top small businesses in America by *Forbes* magazine over the last couple of years. Lindsay chairman and president Gary Parker shared a profound statement during a tour of the company's facility. He said, "People can deal with almost anything but uncertainty." In other words, people must know where the business is headed or what the goals are if you expect them to be a part of the team.

Lindsay employees are "enlisted" to share in the vision through an employee involvement program.

What's your vision? Make it inspiring, positive and uplifting. Write it down, plaster it on the walls of every hall and office. Get on your soap box and preach it. Share your vision and enlist everyone in your organization to help you achieve it.

Remember, it's really not people problems, it's people's problems. Focus on a common goal and not on the problems. — *PCT Leadership 92*



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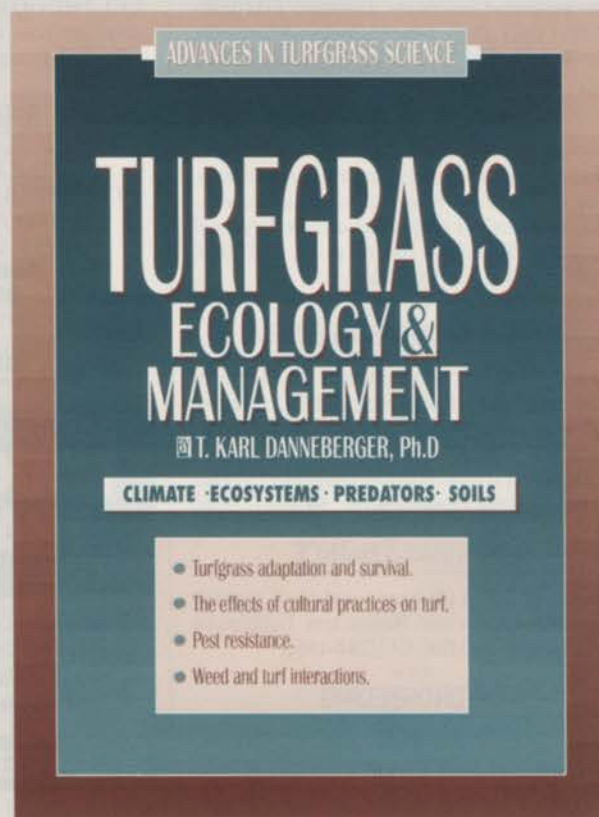
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All classified advertising is 75 cents per word. For box numbers, add \$1 plus six words. All classified ads must be received by the publisher before the first of the month preceding publication and be accompanied by cash or money order covering full payment. Submit ads to: *Lawn & Landscape Maintenance* magazine, 4012 Bridge Ave., Cleveland, OH 44113. Fax: 216/961-0364.

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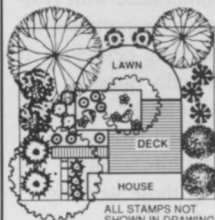
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NEWS

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as sales analyst and later moving to sales representative and then territory sales manager. He transferred to Florida when Velsicol merged with Roussel Bio Corp. in 1988, and managed sales in Florida, Illinois and Indiana.

Kubala received a bachelor of science degree from Illinois Institute of Technology. He is survived by a wife and three children.

PLCAA, PGMS To Elect 1994 Officers

The Professional Lawn Care Association of America and The Professional Grounds Management Society will install their new officers at this month's Green Industry Expo in Baltimore.

PLCAA's new officer slate includes: Lou Wierichs, Pro-X Systems, president; Dale Amstutz, Northern Lawns, president-elect; John Buechner, Lawn Doctor, vice president; and Steve Hyland, Hyland Brothers Lawn Care, secretary/treasurer. John Robinson, Green Drop Lawns Ltd., will serve as past-president.

PGMS's new officer slate includes: Robert Rubel, Rubel's Landscape Services, president; Steven Chapman, Digital Equipment Corp., 1st vice president; Teddi Davis, Garick Corp./Landscape Wholesale Inc., 2nd vice president; and Jeffrey Bourne, Howard Co. Parks and Recreation, treasurer. John Michalko II, Case Western Reserve University, will serve as past-president.

Both associations will officially announce their new officers and directors at their respective annual meetings.

DowElanco Guides Aid In DOT Compliance

DowElanco has developed a comprehensive guide to help professional applicators comply with new federal Department of Transportation regulations for chlorpyrifos-based insecticides. The DOT regulations took effect Oct. 1, 1993.

The guide outlines compliance with HM-181, a law that applies to transportation of numerous materials including pesticides. It is designed in a user-friendly question and answer format. A booklet is also available to assist turf and ornamental professionals in complying with HM-126F, a law governing the training of those working with hazardous materials.

Free copies of the guides are available by calling a DowElanco field representative or the DowElanco Specialty Products customer information service, 800/352-6776.



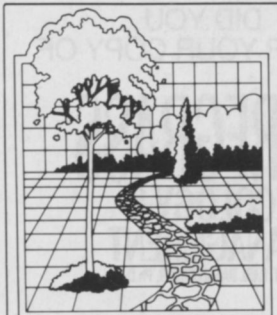
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