

NOVEMBER 1993 • \$3.00



LANDSCAPE MANAGEMENT



SELECTING Perennials

PLUS

- Sand, silt and clay • Preparing for winter
- What's new in pick-up trucks • The landscape care industry



"PennLinks is Paradise at the End of 'Hell's Half Acre' "



"Our Number 14 'Hell's Half Acre' is certainly the most discussed hole on our course. A 600 yard, par five with bunkers across the fairway 400 yards from the championship tee, it's a treacherous trek to paradise.

"The reward for powerful strokes and crafty strategy is the PennLinks green that finishes the hole.

"Members welcome the predictability and consistency of this and the other greens on our course.

"All 18 greens were redone in the fall of 1991, and were in play the following spring. We gassed the existing grasses before renovating and reseeding our soil greens. Based on my prior success with PennLinks creeping bentgrass, I felt secure in

specifying PennLinks. Even with our heat and humid conditions, it survives and thrives in Baltimore.

"Once our members reach the paradise at the end of 'Hell's Half Acre', they never look back.

"But they sure do talk about it".

Douglas W. Petersan, Supt.
Baltimore Country Club
Timonium, Maryland

Tee-2-Green Corp.

PO Box 250, Hubbard, OR 97032
1-800-547-0255
503-651-2130 FAX 503-651-2351

LANDSCAPE MANAGEMENT

is a proud member of these
green industry professional
organizations:



Associated Landscape Contractors of America,
12200 Sunrise Valley Dr., Suite 150, Reston,
VA; (703) 620-6363.

American Sod Producers Association, 1855-A
Hicks Rd., Rolling Meadows, IL 60008; (708)
705-9898.

**Golf Course Superintendents Association of
America**, 1421 Research Park Dr., Lawrence,
KS 66049-3859; (913) 841-2240.

International Society of Arboriculture, P.O.
Box 908, Urbana, IL 61801; (217) 328-2032.

International Turfgrass Society, Crop & Soil
Environmental Sciences, VPI-SU, Blacksburg,
VA 24061-0403; (703) 231-9796.



National Arborist Association, The Meeting
Place Mall, P.O. Box 1094, Amherst, NH
03031-1094; (603) 673-3311.

National Golf Foundation, 1150 South U.S.
Highway One, Jupiter, FL 33477; (407) 744-
6006.

Ohio Turfgrass Foundation, 2021 Coffey Rd.,
Columbus, OH 43210; (614) 292-2601.



Professional Grounds Management Society,
120 Cockeysville Rd., Suite 104, Hunt Valley,
MD 21031; (410) 584-9754.



**Professional Lawn Care Association of
America**, 1000 Johnson Ferry Rd., NE, Suite C-
135, Marietta, GA 30068-2112; (404) 977-5222.

**Responsible Industry for a Sound
Environment**, 1155 15th St. NW, Suite 900,
Washington, D.C. 20005; (202) 872-3860.



Sports Turf Managers Association, 401 N.
Michigan Ave., Chicago, IL 60611-4267; (312)
644-6610.

**Turf and Ornamental Communicators
Association**, 8400 Normandale Lake Blvd.,
Suite 500, Bloomington, MN 55437; (612) 832-
5000.

AS WE SEE IT

JERRY ROCHE, EDITOR-IN-CHIEF



Players' wish: that the World Series be played on real turf

"They prefer grass."

With that statement, Philadelphia Phillies groundskeeper Ralph Frangipane pretty much sums up the feeling of Major League Baseball players.

What the players *like* and what they *get*, though, don't always agree—witness the 1993 World Series, which was played on two synthetic turf fields.

Frangipane is a turfgrass guy from way back—1951, to be exact. The career of his Toronto Blue Jays' counterpart, Brad Bujold, dates back to Exhibition Stadium, but that also featured synthetic turf.

"I really can't compare one against the other," Bujold tells us. "But we have run into some unique problems with artificial turf.

"For instance, everything shows up. If you watch a game on television, when it rains, you get the water stains; when players spit chewing tobacco, it stains the carpet. Chewing gum gets spit on the field, stepped on, and then you've got to freeze it and try to chip it off."

Frangipane is from the old school.

"On synthetic turf, baseball is a totally different game," he says. "You have a faster infield, the ball moves faster, it's rougher physically on the athletes. When you bunt, the ball moves faster and it gives the infielders an opportunity to get to the ball quicker."

Frangipane hopes he doesn't have to put up with synthetic turf much longer.

"There's definitely talk about going back to grass," he notes. "Lately, the papers have picked up on it. What happens is that—when we convert to football—we have to dig out second and third and put Astroturf on those bases. You're using two different types of Astroturf that have different textures, and the seams in some places are not perfectly even and might have a tendency to trip players. So that's the big beef.

"The Eagles have been complaining about it. They're out there right now lim-

bering up, but they can't have a full practice on Astroturf every day because they get leg splints and all that. They just limber up there, and then they go to a grass field to run their plays."

Bujold has some of the same problems, despite different uses for the Skydome field.

"Here, the stands have to rotate for football. In order to do that, you have to get the turf out of the way so the stands can go over the tracks," Bujold says. "Here, the artificial turf gets rolled up into large rolls (for conventions, etc.). So the seams—the zippers—that join the pieces of turf together get worn out."

Despite the problems inherent in synthetic turf fields, the number one consideration is consistency.

"I haven't had any complaints from the players themselves about the field," Bujold continues. "We try to be consistent so that, when a team *does* go out there, there are no surprises. That will go for the pitcher's mound, dirt areas, batter's boxes—whatever. It has to be consistent."

LANDSCAPE MANAGEMENT congratulates Frangipane, Bujold and other synthetic turf managers for all the special problems they have. We only wish that more field owners saw things differently. However, natural grass fields are catching on again, just like old times. Royals Stadium and Faurot Field at the University of Missouri, we hear, will become the two newest converts to natural grass (see "LM Grape-vine").

Certainly, if the Phillies and Blue Jays had their way, they would have been playing on real grass, too.

Jerry Roche

**NO
INTEREST
FINANCING 'TIL APRIL 1**
on all new John Deere Golf & Turf Equipment. Or, finance today
at rates as low as 5.75% APR. An impressive lease package
is also available. Offer expires April 30, 1994.



IT CLEANS UP THE

Every course has them. The spots that are tough to get to. Tough to mow. Spots where the John Deere 2653 Professional Utility Mower shines.

A unique combination of superior climbing ability, hydraulic reel drive, and 26-inch cutting units



allows the 2653 to precisely mow where others can't. Powered by a liquid-cooled 18-hp engine, the 2653 has the guts to work through wet, lush, and long grass—plus the ground hugging ability to deliver a

Hydraulic reel drive and John Deere 26-inch cutting units allow the new 2653 to power through tough conditions as well as precisely follow ground contours.



PHOTOGRAPHED AT GENEVA NATIONAL GOLF CLUB
LAKE GENEVA, WISCONSIN

TOUGH SPOTS

quality cut over undulating terrain.

In addition, the 2653 features the same John Deere reel technology found in the 30-inch ESP models used on our 3365 Turf Mower. Reels and bedknives are made of induction-hardened, high-impact steel for longer life. Height adjustments are locked-in

with a simple system designed to hold true through the bumps and shocks of everyday use. You simply don't find cutting units any better than these.

For the name of your nearest distributor, or free literature, call 1-800-544-2122. Or write John Deere, Dept. 956, Moline, IL 61265.

Circle No. 110 on Reader Inquiry Card



**NOTHING RUNS
LIKE A DEERE®**



LANDSCAPE MANAGEMENT

an association of the Lawn Care Industry

NOVEMBER 1993 VOL. 32, NO. 11

COVER FEATURE

12 Using perennials for 'custom jobs'

Commercial accounts are discovering what homeowners already know: perennials make landscapes distinctive. LM visited landscapers who provide this service.

Ron Hall

FEATURES

14 LM Reports: Spreaders

The industry's best spreaders cover large areas and carry heavy loads of fertilizer, chemicals or topdressing. Whether designed for pick-up trucks or hitches, this is an invaluable equipment category.

compiled by Terry McIver

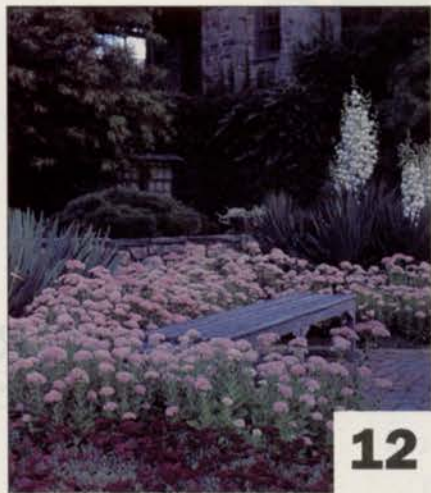
16 1994 Pick-ups

If it's high time to go shopping for a new truck or three, make sure you know what your dealer can offer. Most manufacturers are offering special buying incentives, too.

Arthur Flax

22 The coming of winter

Chemicals, irrigation systems and equipment must be carefully prepared to cope with sub-freezing temperatures in the northern U.S.



12

TECH CENTER

24 Sand, silt and clay

By understanding the properties of soil texture classes, you are better able to develop management strategies best suited to soil limitations.

Charles H. Darrah III, Ph.

GOLF 'SCAPING

38 Specialized equipment

Here are some concepts to consider when hunting for that 'dream machine' that does exactly what you want it to do.

Steve and Suz Trusty

HOT TOPICS

42 A million elms

A relatively new type of disease-resistant American elm is replacing those lost to Dutch elm disease on golf courses and landscapes. Goal of the Elm Research Institute is to have one million planted by the year 2000.

43 Seed harvest: 'fair'

This year's seed harvest reaps modest yields. Weather conditions see-sawed from heavy rain to oppressive heat. During one hot spell the crop was near ruin.

Terry McIver

46 Gypsum saves water

Substantial savings are being chalked up to small gypsum blocks that measure moisture content. The Texas Ag Extension Service is investigating the idea, which has the potential to save thousands of dollars and millions of gallons of water annually.

LAWN CARE INDUSTRY

SPECIAL SUPPLEMENT

27 State of the lawn care industry

● **Chemical lawn care sales flat; allied services boom:** 1,000 surveys mailed, 221 returned; service 'mix' appears to be swinging slightly, toward add-ons; speculation that customer base eroded because of the economy.

Jerry Roche

● **Update: combined TruGreen/ChemLawn operations on fast track:** President Don Karnes and a lean management team steer the industry leader toward support of branch operations and field specialists.

Ron Hall

ADVANSTAR Communications, Inc.,
7500 Old Oak Blvd., Cleveland, OH 44130
Phone: (216) 243-8100
Fax: (216) 891-2675

EDITORIAL STAFF

JERRY ROCHE, Editor-in-Chief
TERRY McIVER, Managing Editor
RON HALL, Senior Editor
MICHELLE THERRIEN, Graphic Designer
KEITH FAZIO, Art Director
MAUREEN HREHOICK, Group Editor

BUSINESS STAFF

JON MIDUCKI, Publisher
ROBERT EARLEY, Group Vice President
JUDY PAWLOWICZ, Production Manager
ROSY BRADLEY, Senior Production Manager
DEBI HARMER, Production Director
DIANE BIAS, Administrative Coordinator

ADVERTISING OFFICES

CLEVELAND (HEADQUARTERS) OFFICE

7500 Old Oak Blvd.,
Cleveland, OH 44130
Phone: (216) 243-8100
Fax: (216) 891-2675

JON MIDUCKI, Publisher: (216) 826-2855
ROBERT EARLEY, Group Vice President
ANNE LANGHENRY, Promotion/Research Mgr.:
(216) 891-2739
BRIAN KANABA, Sales Representative:
(216) 891-3155
ANITA KNIGHT, Sales Representative:
(216) 891-3172
DIANE BIAS, Administrative Coordinator:
(216) 891-2750

SEATTLE OFFICE

1333 NW Norcross
Seattle, WA 98177
Phone: (206) 367-5248
Fax: (206) 367-5367

BOB MIEROW, West Coast Representative

SUBSCRIBER / CUSTOMER SERVICE

(218) 723-9477 FAX (218) 723-9437



ADVANSTAR
COMMUNICATIONS

President & CEO: Edward D. Aster
Vice President Finance/CFO: Richard D.W. Mead
Vice Presidents: Robert E. Earley, Brian Langille,
Brian Nairn, Bernard J. Rogers, Phil Stocker
Vice President, Publishing Operations: Kevin J.
Condon
Vice President, Editorial: Jane P. Edelstein
Treasurer & Controller: Adele D. Hartwick
Secretary & Director of Corporate Finance: David W.
Montgomery

Reprints of all articles in this issue and past issues of LANDSCAPE MANAGEMENT are available (250 minimum). Call or write Brian Kanaba, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130 (216) 891-3155; fax (216) 826-2865.

LANDSCAPE MANAGEMENT (ISSN 0894-1254) is published monthly by Advansstar Communications, Inc. Corporate and editorial offices: 7500 Old Oak Blvd., Cleveland, OH 44130. Advertising offices: 7500 Old Oak Blvd., Cleveland, OH 44130; 1333 N.W. Norcross, Seattle, WA 98177. Accounting, advertising production and circulation offices: 131 W. First St., Duluth, MN 55802. Subscription rates: \$30 per year in the U.S.; \$55 per year in Canada. All other countries: \$100 per year. Current issue single copies (pre-paid only): \$3 in the U.S.; \$6 in Canada; elsewhere \$10. Add \$3.50 per order for shipping and handling (pre-paid orders only). Office of publication: Advansstar Communications, Inc., 131 W. First St., Duluth, MN 55802. Second class postage paid at Duluth, MN 55806 and additional mailing offices.

Copyright © 1993 by Advansstar Communications, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

POSTMASTER: Send address changes to LANDSCAPE MANAGEMENT, P.O. Box 6198, Duluth, MN 55806. Date effective: September 8, 1992.



Printed on Recycled Paper



Printed in the U.S.A.



● **Losing the focus of lawn care sales:** An adversarial attitude becomes apparent to customers when they ask a technician a few questions and receive nothing but a one-word answer. And this guarantees one thing: the company will lose.

Ed Wandtke

● **Labor problems cropping up all over:** Most eligible labor lacks trainability, commitment, work ethic, according to our survey. Compiled by the LM editorial staff.

DEPARTMENTS

1 As We See It
4 Ask the Expert
LM Grapevine
46 Info-Center
48 Events

49 Jobtalk
50 Product Showcase
58 Classified
60 Ad Index

ON THE COVER

Aerial photo of a beautiful residential landscape courtesy of Gary Kinman, Kinman & Associates, Dublin, Ohio.

LM READER ADVISORY PANEL

Ken Gerlack
Contra Costa Landscaping
Martinez, Calif.

Twyla Hansen
Nebraska Wesleyan University
Lincoln, Neb.

Tim Hiers
Collier's Reserve
Naples, Fla.

Bill Prest
Springvale Country Club
North Olmsted, Ohio

Mark Schlossberg
Pro-Lawn Plus
Baltimore, Md.

Brian Storm
Terrascape Inc.
Birch Run, Mich.

| | | |
|---|--|--|
| AGRI-BUSINESS GROUP | LANDSCAPE & IRRIGATION MAGAZINE | PURSELL INDUSTRIES, INC. |
| AMERICAN ASSN. OF NURSERYMEN | LANDSCAPE MANAGEMENT MAGAZINE | RHONE-POULENC AG Co. |
| AMERICAN CYANAMID Co. | LANGE-STEGMANN Co. | RIVERDALE CHEMICAL Co. |
| THE ANDERSONS | LAWN & LANDSCAPE MAINTENANCE MAGAZINE | ROHM AND HAAS Co. |
| ARBOR AGE MAGAZINE | LEA'S GREEN MEADOWS, INC. | ROYAL LAWN OF MONMOUTH, INC. |
| ASSOCIATED LANDSCAPE CONTRACTORS OF AMERICA | LEBANON CHEMICAL CORP. | SANDOZ CROP PROTECTION |
| BADER RUTTER AND ASSOCIATES | LESCO, INC. | THE SCOTTS Co. |
| BASF CORP. | MILES INC. | SERVICEMASTER CONSUMER SERVICES L.P. |
| BASINGER & ASSOCIATES, INC. | MONSANTO AGRICULTURAL Co. | SOCIETY OF AMERICAN FLORISTS |
| BECKER-UNDERWOOD, INC. | MONTEREY LAWN AND GARDEN PRODUCTS INC. | SPORTSTURF MAGAZINE |
| BECKMANN TURF & IRRIGATION SUPPLY, INC. | MOUNTAIN LAKE VEGETATION MANAGEMENT COUNCIL, INC. | SPRAYING SYSTEMS Co. |
| CANNON TURF SUPPLY, INC. | NATIONAL ARBORIST ASSN. | SSI MOBLEY Co., INC. |
| CHEMICAL & PHARMACEUTICAL PRESS | NATIONAL CHRISTMAS TREE ASSN. | STEPHENSON CHEMICAL Co., INC. |
| CIBA CORP. | NATIONAL PEST CONTROL ASSN.. | SUPERIOR-ANGRAN INC. |
| CORNBELT CHEMICAL Co. | NATIONAL RAILROAD CONTRACTORS ASSN. | TERRA INTERNATIONAL, INC. |
| CORON CORP. | NATIONAL ROADSIDE VEGETATION MANAGEMENT ASSN. | TURF GRASS, INC. |
| DOWELANCO | NICHIMEN AMERICA, INC. | TURF MANAGEMENT UNIT |
| DUPONT AGRICULTURAL PRODUCTS | NOR-AM CHEMICAL Co. | TURF & NURSERY SUPPLY, INC. |
| ESTES, INC. | NORTHEAST VECTOR MANAGEMENT, INC. | TURF PRODUCTS LTD., INC. |
| FMC CORP. | OLDHAM CHEMICALS Co., INC. | TURF SPECIALTIES CORP. |
| FORSHAW DISTRIBUTION, INC. | OLYMPIC CHEMICAL Co., INC. | TYLER ENTERPRISES, INC. |
| GOLF COURSE NEWS | ORKIN PEST CONTROL Co. | UNIROYAL CHEMICAL Co., INC. |
| GREENHOUSE GROWER MAGAZINE | PBI/GORDON CORP. | UNITED HORTICULTURAL SUPPLY |
| GRO TEC, INC. | PENAGRO INC. | UNITED PRODUCT FORMULATORS & DISTRIBUTORS ASSN. |
| GROUNDS MAINTENANCE MAGAZINE | PEST CONTROL MAGAZINE | U.S. GARDEN SALES, INC. |
| HELENA CHEMICAL Co. | PEST CONTROL SUPPLIES | VALENT U.S.A. |
| HOECHST-ROUSSEL AGRI-VET Co. | PEST CONTROL TECHNOLOGY MAGAZINE | VIGORO INDUSTRIES, INC. |
| HOME PARAMOUNT PEST CONTROL Co. | PROFESSIONAL LAWN CARE ASSN. OF AMERICA | WEST VIRGINIA VEGETATION MANAGEMENT ASSN. |
| HOWARD JOHNSON'S ENTERPRISES | PROFESSIONAL TURF SPECIALTIES, INC. | WILBRO, INC. |
| INDEPENDENT TURF & ORNAMENTAL DISTRIBUTORS ASSN. | PRO-LAWN PRODUCTS INC. | WILBUR-ELLIS Co. |
| ISK BIOTECH CORP. | PRO MAGAZINE | YARD & GARDEN MAGAZINE |
| J. MOLLEMA & SON, INC. | | ZENECA INC. |
| KNOX FERTILIZER Co., INC. | | ZOECON CORP. |
| KOOS, INC. | | |

A UNIFIED INDUSTRY WORKING TOWARD A COMMON GOAL

Nearly every key issue affecting one part of the Specialty Pesticide

Industry affects the entire industry.



RISE (Responsible Industry for a Sound Environment) is bringing industry leaders together to identify critical public issues and legislation, and address them as a unified body.

We're proud of our industry's commitment to enhancing and preserving the environment. And we're committed to educating policymakers and the public about the environmental, health and safety benefits of proper pesticide use.



A wide variety of companies and organizations are already members of RISE. They have contributed to successful projects like federal and state environmental symposiums and our consumer publication, "Pesticides in Your Environment."



If you're a manufacturer, formulator, distributor, supplier or association involved with the use of specialty pesticides, we invite you to join RISE and participate in our future success.

For more information, call RISE at
(202) 872-3860, or write to 1155 15th St. N.W.,
Suite 900, Washington, D.C. 20005.



ASK THE EXPERT

DR. BALAKRISHNA RAO

Red thread varieties differ

Problem: I understand that Bayleton can control red thread disease. Does this mean that it will control both the newly-described red thread—*Laetisaria fuciformis*—and pink patch (*Limonomyces roseipellis*), or will it control the old-name red thread (*Corticium fuciforme*)? (Pa.)

Solution: Reports indicate that Bayleton will control the red thread disease caused by *Laetisaria fuciformis* (new name) or *Corticium fuciforme* (old name). It will not control pink patch caused by *Limonomyces roseipellis* (new name).

Therefore, to properly manage these problems, it is important to identify the disease first. The following discussion may help you diagnose these two newly-described diseases.

Recently, turfgrass pathologists renamed red thread disease caused by *Corticium fuciforme* (old name) into pink patch (*Limonomyces roseipellis*) and red thread (*Laetisaria fuciformis*). Both these agents can affect *Lolium sp.* and *Fertuca sp.*, but only red thread is reported to affect *Agrostis sp.* and *Poa sp.*

Pink patch spreads slower than red thread; therefore, it will be less severe and won't affect the growth rate of turfgrass. Leaves will be covered with pink, membranous mycelial growth. Pink patch differs from red thread by the lack of red, thread-like mycelial growth on leaf tips and the pink, cottony flocks of anthrocondidia. Because of this, it spreads slowly; therefore, often pink patch disease can be managed by cultural practices such as proper mowing and feeding programs.

The red thread disease can be prevalent during spring and autumn on slow-growing, nitrogen-deficient turf. The fungal agent kills the affected blades and then pink- or reddish-colored threads protrude from the tip of the leaves. When the disease is active following humid weather, the diseased areas appear reddish-brown. If the disease is severe, provide adequate supplemental nutrients in addition to fungicides.

Big-eyed bugs vs. the chinch

Problem: I've heard of a big-eyed bug that feeds on chinch bugs. Would you please give me some hints on how to identify this insect? (Pa.)

Solution: Big-eyed bugs feed on chinch bugs and other insects found in turfgrass. Like chinch bugs, they are also thatch-inhabiting insects. In the United States, about 20 species of this predator insect exist. Big-eyed bugs can infest lawns and feed on all stages of chinch bugs and effectively reduce their population. Even though they may appear to feed on turfgrass, their major source of food is insects.

Adult chinch bugs and big-eyed bugs look similar in appearance. Use a 10x hand lens and study the following features for identification: The body of the chinch bug is narrow with a small, pointed, triangular-shaped head and small eyes. The body of the big-eyed bug is wider with a larger blunt head and two large prominent eyes. Big-eyed bugs move faster and are more active than chinch bugs. If you crush a chinch bug, it has an unpleasant odor.

Safest deicing chemicals

Problem: What kinds of deicing salts would be effective, inexpensive and safe to use around sidewalks and roads having landscape plants or street trees nearby? We are thinking about using urea. Is it a good idea? I appreciate your comments. (N.Y.)

Solution: Common deicing salts, sodium chloride (NaCl) and calcium chloride (CaCl₂) have freezing points, in solution, considerably below that of water. Sodium chloride has a minimal freezing temperature, in solution, of -21.2° C. and calcium chloride goes down to -55° C. Both salts also give off heat when dissolved in water but, because of the small amounts applied, the heating effect is negligible.

Calcium chloride is less toxic than sodium chloride but it is two to eight times more expensive. In addition, it readily absorbs moisture and cakes, making it difficult to apply. Calcium chloride's melting ability at low temperature is particularly important in areas where temperatures routinely drop below those where sodium chloride is effective.

We could find very little information concerning the use of urea as a deicing agent. One source suggested a rate of 1 lb. urea per 10 sq. ft. We tried both urea and sodium chloride at this rate and found sodium chloride to be noticeably more effective when the temperature was several degrees below freezing. Urea is supposedly most effective just below freezing.

Urea is less likely to injure plants than sodium chloride and causes less injury to metals and concrete. However, the lower effectiveness and higher cost may limit its use as an ice melter.

Abrasives such as sharp sand are sometimes used alone or in combination with salt. Their effectiveness has been questioned, however, since they have no melting power and may, in fact, insulate and contribute to ice build-up with additional precipitation.

In spite of the problems in using sodium chloride, the advantages apparently outweigh the disadvantages and it remains the most widely used chemical ice melter.

The practice of physically removing most snow and ice, then following up with judicious applications of sodium chloride, should help protect both plants and people.

Home study course in horticulture

A reader wrote to tell us of a home study course at the University of Guelph, Ontario.

It is a diploma program that offers study towards a degree in agriculture or horticulture. Areas of study include turfgrass management, landscape management, etc. Contact the University of Guelph, Independent Study, Guelph, Ontario, Canada N1G 2W1.

Dr. Balakrishna Rao is Manager of Research and Technical Development for the Davey Tree Co., Kent, Ohio.

Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.

Change the Way You Recycle Clippings. Fast!



1. Discharge

Use the side discharge deck to broadcast the clippings.

A Grasshopper outfront zero-radius mower lets you change the method of recycling clippings from one job to the next quickly and easily to meet your customer's preference or the community's standards.



2. Collect

Add a Quik-D-Tatch Vac[®] grass-catching system to collect them for composting.

Choose from nine models, 12 to 25 hp, gas or diesel, cutting widths from 44" to 72", with mulching deck options, plus Quik-D-Tatch Vac[®] grasscatching systems and gear-round attachments.



3. Mulch

Switch in minutes to the new interchangeable Down Discharge[™] mulching deck, which recuts clippings and forces them back into the grass bed to enrich the soil.



DISCOVER
GRASSHOPPERABILITY

and go where you want to mow!
Ask your dealer for a demonstration.



First to Finish ... Built to Last

GRASSHOPPER[®]
YOUR NEXT MOWER

The Grasshopper Company
One Grasshopper Trail • P.O. Box 637
Moundridge, KS U.S.A. 67107
Phone (316) 345-8621 • FAX (316) 345-2301

©1993

USING PERENNIALS FOR 'CUSTOM' JOBS

Commercial accounts are discovering what homeowners already know: perennials make landscapes distinctive.

■ Tom Coffman doesn't want to work on weekends. He gets enough of that Monday through Friday.

That's why the bachelor construction engineer hired Barnes Nursery to install a low-maintenance landscape at his weekend home. Barnes succeeded admirably. Tom spends precious little time caring for the green, cool landscape surrounding his neat, one-story ranch.

Barnes did this by planting groundcovers, dwarf woody ornamentals and herbaceous perennials. The Huron, Ohio, firm installed plant varieties that require little care. (Few, if any, landscape plants require absolutely no care. A Barnes' crew freshens up this landscape several times each season.)

It's not what this landscape contains that makes it unique, though.

It's what's it's missing—annuals; it contains just a cluster of geraniums for a splash of red at the home's front door. The rest of the landscape, now several years old, survives from season to season, some of it remaining green through the winter, some of it dying back and leaving delicate brown or gray leaves or stalks.

The homeowner's lifestyle and maintenance considerations dictated use of perennial plants in this garden. There is, however, no reason why perennial and annual plants can't be used together. More typically they are. Even an established perennial grower like Sam Jones of Piccadilly Farm in Bishop, Ga., acknowledges that "for color, it's hard to beat annuals."

Commercial still lagging—Because

homeowners want distinctive, one-of-a-kind landscapes, they're more likely to welcome herbaceous perennials into their landscapes than commercial clients, says Jim MacMahon, maintenance manager for Coronis Landscaping in Nashua, N.H.

But selling commercial accounts on perennials can be tougher.

"Often there are no gray areas with commercial accounts," says MacMahon. "To them, plants are either shrubs, trees or flowers. When they think of flowers, they think of annuals."

Landscape companies—even those specializing in commercial installations and maintenance—would, however, be unwise to ignore perennials and focus exclusively on flowering annuals and woody ornamentals.

"More landscapers in the Atlanta area are putting in nice gardens, using higher quality plants, because Post Properties is stimulating a lot of interest in perennials," says Picadilly Farms' Jones.

In this case, a larger, upper-end landscape firm is influencing an entire market area, commercial and residential. More typically, the impetus for professionally-installed perennial gardens comes from landscape designers who concentrate just on home gardens.

"Out here, a lot of relatively small-in-volume landscape designers like to use a lot of perennials," says Al Rogers of Caprice Farm Nursery in Sherwood, Ore. "They seem to be using proportionally many more perennials than the big companies that are landscaping the business campuses

and the other big projects."

Plant vs. business people—Rogers characterizes some of these professionals as plant people first, and business people second. "They do one or two residential gardens at a time and they do a very good job at it," he says.

One reason why bigger landscape firms often do not embrace perennials more enthusiastically is because they've become so comfortable delivering what they've always delivered, including seasonal color changeovers: annuals to mums to pansies, etc. Perennials, by contrast, live from year to year, although certainly not indefinitely. Most die back each fall, particularly in northern climates, to blossom again the following season.

But lack of familiarity with herbaceous perennials might be just as limiting.

"It's amazing. We still see landscapers who have been in business for 20 years and they ask us, 'I've never planted these flowers. Will you help me?' Of course, we'll help," says Mark Mackovajak, owner of North Coast Perennials in Madison, Ohio. His wholesale nursery has as many as 300,000 container plants.

A well-designed landscape using perennial plants can be just as colorful as an annual garden.



Mackovajak feels that some landscapers may be intimidated by the amazing variety of perennials. That's one reason why North Coast planted its own display garden with about 100 different types of plants.

"But, let's face it, perennials are something landscapers don't necessarily have to learn about, and they can still get by," says Mackovajak.

Show them—Bobbie Schwartz of Bobbie's Green Thumb in Cleveland, is a self-admitted plant person. She thinks she's a pretty fair business person too, even if the volume of her business is controllably small.

She credits much of her growing popularity as a landscape designer to her love and knowledge of perennial flowers. Like Mackovajak, she often has to show prospective clients actual growing plants before she can begin selling. She doesn't go far. She uses the property surrounding her fashionable home as a demonstration garden. Each perennial plant is labeled for easy identification.

Schwartz says the public—and even some landscape professionals—often mistakenly believe that perennials are *always*:

- less colorful than annuals,
- easier to maintain than annuals, and
- more expensive than annuals.

"A number of perennials will give you as



Designer Bobbie Schwartz says the amazing variety of perennials give her a never-ending supply of landscape options.

much color as annuals. They will start to bloom in June and bloom until frost," she says. Many don't, of course, but that barely lessens their value as landscape plants. "Because of the color and texture of their foliage, or because of their shape, some are almost as interesting when they're not blooming," claims Schwartz.

Some perennials require less maintenance and some don't, says Schwartz. Once established, some require only to be cut back each spring. Others require regular dead-heading (removal of exhausted blossoms)

and pruning.

Schwartz also maintains that, yes, perennials are more expensive to purchase than annuals, but cost less to install and maintain in the long run.

Commercial applications—

Schwartz says perennials at commercial sites will grow as landscapers learn to use them to solve difficult landscape problems in addition to accepting them for their beauty and form.

For example, she claims the management of a Cleveland chemical plant is extremely pleased with the low-maintenance landscape she installed at the office entrance. She used mostly perennials, ornamental grasses and low-growing shrubs.

"I decided on plants that will fill out and leave as little exposed ground as possible. I designed this landscape to solve problems, not to create problems for the future," says Schwartz.

That's the same philosophy MacMahon said his Coronis Landscaping used in planting daylilies in the parking island of a valued client. "When a snow plow runs over them in December, they don't even know they got hit. In the spring they're back up again," says MacMahon.

—Ron Hall

Selected flowering perennials

| Name | Height | Bloom period | Colors |
|------------------------------|--------|---------------------------|---|
| Astilbe, <i>false spirea</i> | 18-36" | mid- through late summer | white, pink, lilac, or red feathery plumes |
| Aster | 3-4' | August-September | white, pink/lavender, raspberry red, blue |
| Bellflower | 1-3' | late spring to summer | white, blue |
| Chrysanthemum | 12-48" | late summer to fall | all colors but blue; pinch off flower buds to delay bloom till fall |
| Shasta daisy | 24-36" | midsummer-late fall | white daisy, yellow center |
| Delphinium | 24-48" | mid- to late summer | blue, white, purple spikes |
| Pinks | 8-18" | early through late summer | white and red carnation-like flowers |
| Garden mums | 12-24" | September, October | white yellow, pink/lavender, bronze, red, orange coral, salmon |
| Miniature roses | 12-18" | spring through fall | white, yellow, pink/lavender, orange, red |
| Gypsophila | 2-3' | late Aug. to late Sept. | white, pink |

LM REPORTS

Industry's best spreaders cover large areas, carry big loads

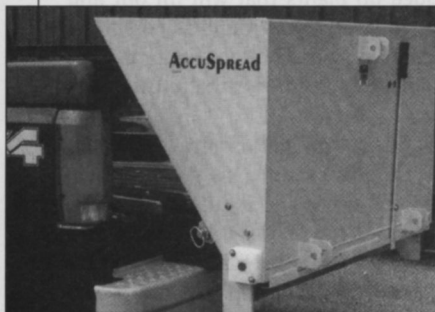
**Points to consider:
versatility, load
capacity, width of
spread and weight.**



The Tyler F-42 spreads 40 to 50 ft.



Boss Products' V-Box line: great for snow control



AccuSpread dispenses sand, salt, deicers, top dressing, top soil.



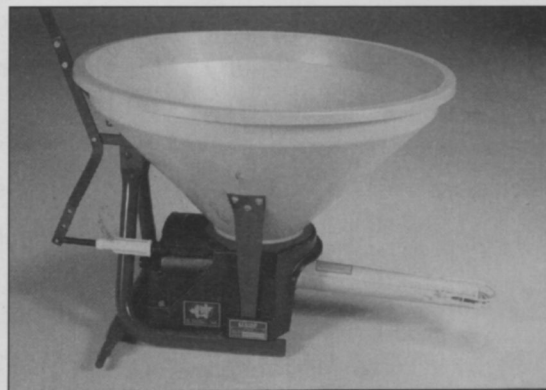
Befco Turbo Hop: 20-66 ft. spread



Dakota blender: large capacity, mixes materials for accurate formulations.



Classen R-36: a 100-lb. hopper for small jobs.



Lesco's Pendulum spreaders carry 400-2400 lbs.



The Ransomes 5th Wheel topdresser has 12 psi ground pressure.

SPREADERS FOR EXPANDED TURF APPLICATIONS

| COMPANY & MODEL | FEATURES |
|--|---|
| AccuSpread Circle No. 311 | Quick mount to 3-pt. hitch, front loader or tractor, skid-steer or rear of truck; self-loading from bulk pile of material; hydraulic drive; 12- to 20-cu.ft. capacity; 12" spinner made of $\frac{3}{16}$ " steel; four welded steel vanes |
| Befco Turbo Hop Circle No. 312 | Four models available; spout has infinitely adjustable arc, spreads from 20 to 66 feet; steel tubing frame covered with epoxy paint; hydraulic remote control flow opening; short steel spout for sand and salt; 13- to 32-cu. ft. capacity |
| Boss Products V-Box line Circle No. 313 | Sand and salt spreaders for $\frac{3}{4}$ - and one-ton pick-up trucks; seven-ft. long; hopper holds up to 1.8 cu.yd; easy to install or remove; 12-gauge mild steel or 304 stainless steel; worm gear, self-cleaning conveyor pintle chain, 13" spinner disc with four vanes standard |
| Classen RS-36 Circle No. 314 | A riding spreader that maneuvers well in tight areas ; 23" turn radius; edging control; 3-hole distribution system on spreader; rust-free, 100-lb. hopper |
| Dakota Blenders Model 220 Circle No. 315 | To spread sand/peat mixes, especially on golf greens and sports turf ; Gandy Fertilizer applicator; conventional spreader; PTO drive; eight independent float ing wheels with smooth tires minimize compaction on golf greens; 15-hp drive |
| Fox Cub Spreader Circle No. 316 | Designed to mount on pickup, flat bed or small dump trucks; good for ice control ; also spreads fertilizer or other dry granular material; 4- to 40-ft. spread |
| Garber Seeders Circle No. 317 | Available in three, five and six-foot widths ; $\frac{3}{4}$ " diameter; 72-GDP axle/agitator; cast iron axle bearings with grease fittings; on/off control from driver's seat |
| Henderson FS-P Circle No. 318 | A quick-mounting utility spreader for light duty trucks; self-powered by 8.5 hp I.C 4-cycle air-cooled engine controlled from cab; metered spreading |
| Herd "Sure Feed" Circle No. 319 | 8-hp Briggs & Stratton motor, electric start; independent clutch on motor operates seeder fan; constant spread width at all speeds; spreads up to 36-ft. wide |
| Lesco Pendulum Circle No. 320 | Precision broadcast of granular products and grass seed over large areas; trail-behind or tractor-mounted; capacities range from 400 to 2400 lbs.; accurate spreading and overlapping in a pattern of up to 46-ft. on either side |
| PRSM "Bear" spreader Circle No. 321 | 60-inch spread; 5-cu. yd. capacity ; made of 10- and 12-gauge steel; seven feet wide; double fork hitch; 12'x 3' high |
| Ransomes "5th Wheel" top dresser Circle No. 322 | 20-cu. ft. hopper holds up to 2500 lbs. of material. Spreads to 60-inches; 12 psi ground pressure for use on golf greens |
| Spyker 96-22/94-22 Circle No. 323 | Smaller walk-behind spreaders with a 90-lb. capacity ; include screen/grater/ filter and front hand hold/bump bar |
| Tyler F-42 Circle No. 324 | 78" x 69" dimensions; 10" stainless steel conveyor with 2-speed stainless steel chain drive; spreads 40 to 50 ft. |
| Wilmar S-150 spreader Circle No. 325 | 409 stainless steel hopper, skid and rear-end; stainless steel roller chain; stainless steel conveyor chain; ASAE safety chain; 5-ft. wide; spreads to 25 ft. on turf |
| Wilson "Course Air" Circle No. 326 | Liquid or dry system ; 0-ballistic segregation; vertical drop spread is unaffected by wind; dry rates from 5 to 500 lbs; boom shield prevents drift |
| Worksaver LSU-10 Circle No. 327 | Broadcasts most seed crops, fertilizer and granular chemicals. Can be increased to 15- or 20-bu. capacity with extension kits . Fits Cat. I; Cat. II-3 pt.; Cat. II hitch |

Seek special prices, incentives when picking out 1994 pick-ups

If it's high time to go shopping for a new truck or three, make sure you know what your dealer can offer.

by Arthur Flax

■ Landscape managers can best take advantage of safer, more comfortable and powerful 1994 truck models if they seek out special commercial price and service incentives offered by many truck manufacturers and dealers.

Pick-up trucks are, by and large, the most popular vehicles among landscape managers, be they contractors, park supervisors or golf course superintendents.

New models for 1994 include:

- Full-size Dodge Ram. Dodge boasts that the new truck, which resembles a downsized Peterbilt, has the biggest interior, biggest cargo capacity, biggest tires, and highest torque of all full-size pick-up trucks. However, a crew cab is not available.

Engines range from a 3.9 liter V-6 with 175 hp to an 8.0 liter V-10 with 300 hp and 450 pound/feet of torque (available later this year).

- Chevrolet S-10 and similar GMC Sonoma compact pick-ups. The interior of the new trucks are three inches wider than the 1993 models, feature new trim, seats and instrument panels. Engines include a new 118 hp, 2.2 liter four-cylinder, as well as 165 and 195 hp, 4.3 liter V-6s.

- Ford Ranger Splash. Ford says this is the first compact pick-up to offer "flair-side" styling. Four-wheel drive will be offered at the start of the model year, followed by two-wheel drive versions.

- Mazda B Series compact pick-ups. These new trucks are built by Ford, alongside the Ranger pick-up, and are available with an optional 160 hp V-6. Ford and Mazda compacts compete with compact pick-ups from Chev-

rolet/GMC, Toyota, Nissan, Isuzu and Mitsubishi.

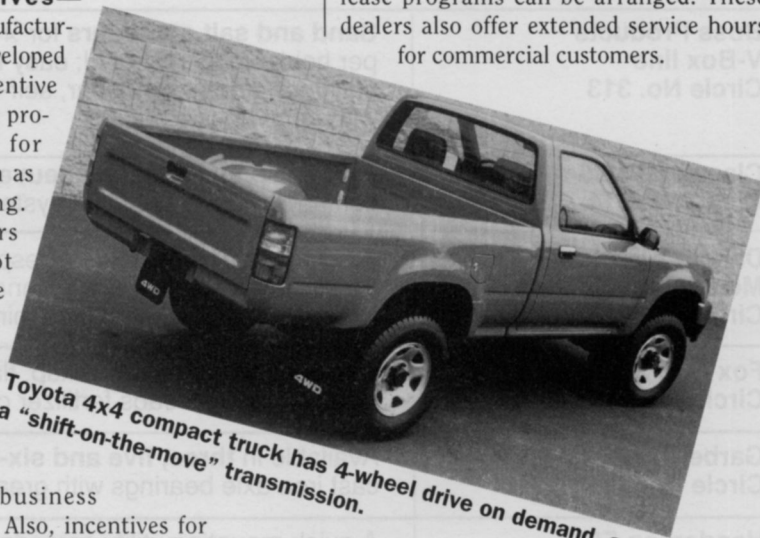
Incentives—

Truck manufacturers have developed special incentive and service programs for trades such as landscaping. All dealers may not offer these programs, so landscapers must identify them -

selves as business customers. Also, incentives for small fleets often have short time limits, while large fleet incentives typically last throughout the model year, so judicious shopping is in order.

The Dodge Commercial Bonus Certificate Program provides qualified firms looking to purchase up to 10 trucks with a \$500

Ford Motor's "Mainstreet USA" program trains dealers to sell to smaller commercial fleets, generally (though not strictly) limited to 10 vehicles. Landscapers can choose between retail customer and fleet customer incentives to receive the best value. Special finance or lease programs can be arranged. These dealers also offer extended service hours for commercial customers.



Toyota 4x4 compact truck has 4-wheel drive on demand, and a "shift-on-the-move" transmission.

Chevrolet has recruited 500 Commercial/Specialty Vehicle (CSV) dealers to serve small fleets, purchasing up to nine vehicles. Customers can choose among retail, small or large fleet incentives. For example, Chevrolet is offering a \$500-off coupon for small businesses on 1993 model trucks, except for crew cab, Blazer and Suburban models. CSV dealers also offer special service hours, stock additional parts for commercial accounts, and may offer truck rentals.

Toyota also offers a fleet program for pick-up truck customers.

What size is best?—Compact pick-ups are suitable for light duty work. They can carry several mowers or a small spray tank. Most can accommodate payloads in the 1,200- to 1,500-pound range. Certain Nissan and Toyota versions offer greater payload capacities, up to one ton.



Larger, 3/4-ton trucks, like the Dodge Ram 2500 4x4, are very popular among landscapers.

rebate above any consumer rebates until the end of 1993. Landscapers can visit their dealers or call (800) 967-5726 to receive a certificate. Dodge is also encouraging its dealers to form special business arrangements to minimize service downtime.

PICKSEED® rolls out the green carpet



Two and a half dozen superior Pickseed varieties cover North America's all-season turf needs. Home lawns, sod, parks, golf courses, everywhere. No matter what your climatic conditions, a hardy, durable, wearable, insect and disease resistant, good-looking Pickseed turf grass does the job for you.



Perennial ryegrass: Blazer II, Dasher II, Edge, Express, Fiesta II, Futura 2000 Blend, Jazz and Lowgrow.
Turf-Type Tall fescue: Maverick II, Mustang, Team Blend and Thoroughbred.
Slower growing Turf-Type Tall fescue: Crossfire, Mini-Mustang, Shortstop and Team Jr. Blend.
Fine fescue: Agram Chewings,

Azay Sheeps, Jasper Creeping Red, Spartan Hard and Victory Chewings.

Elite Kentucky bluegrass: Alpine, America, Banff, Bronco, Crest, Indigo, Nugget and Touchdown. **Poa trivialis:** Colt. **Creeping bentgrass:** National.

The TURF PROFESSIONAL...you.

Pickseed varieties consistently satisfy turf professionals. Always have. Always will.

Your support means everything to us, so we'll do



everything possible to support you. Unceasing R&D. Turf tests. Product literature. Technical data. Professional advice. Whatever you need, Pickseed rolls out the green carpet. It's for you. And thanks.

PICKSEED®
PICKSEED WEST Inc.

P.O. Box 888 • TANGENT, Oregon 97389 • U.S.A.
(503) 926-8886

Circle No. 118 on Reader Inquiry Card

Many landscapers, of course, choose to trailer their equipment. A compact pick-up may be sufficient to pull an equipment trailer. The new Chevrolet S-10 and Mazda B Series, for example, offer towing capacities in the three-ton range.

Towing capacities and payloads vary according to the equipment specified. Trucks with the highest payloads and towing capacities typically require an optional package that includes heavy duty power-train and suspension components.

Dodge Dakota and Toyota T100 intermediate-sized pick-ups and the so-called 1/2-ton full-sized pick-ups can carry payloads of one ton or more and are well-suited for towing equipment and light snow plowing.

Models in this class include the all-new Dodge Ram 1500, the Chevrolet C (two-wheel drive) and K (four-wheel drive) 1500 and the Ford F-150.

Truck manufacturers say the most popular pick-ups for landscapers are the larger 3/4-ton versions. These include the Dodge Ram 2500, Chevrolet C/K 2500 and Ford F-

250. A 3/4-ton pick-up can typically carry payloads of more than 3,000 pounds.

door impact protection in most 1994 model trucks and center-high-mounted stop lamps in all light trucks. Also, most pick-up trucks feature the added safety of anti-lock braking systems.

Dodge Ram and Dakota, Ford F Series and Toyota T100 pick-ups for 1994 feature air bags for the first time.

For landscapers who plow snow, the new air

bags make it essential to

specify the truck with equipment suited for snow plowing and a factory-approved snow plow. Typically offered in a package, such equipment includes heavy duty suspension, cooling system and battery, skid plates and all-terrain tires. Truck manufacturers say a four-wheel drive, 3/4-ton pick-up is a good choice for landscapers who clear large areas of snow, such as parking lots.

—Arthur Flax writes for *Automotive Performance Projects* in Southfield, Mich., a suburb of Detroit.



Toyota's 4x2 Xtracab ranks high in customer satisfaction and quality.

The largest pick-ups include the Chevrolet C/K 3500, Dodge Ram 3500 and Ford Super Duty, as well as stake body trucks built on the same large truck cab-chassis. These are best for landscapers who carry topsoil, stone or other heavy loads. Payloads of more than 5,000 pounds are available.

More features—Landscapers benefit from government rules requiring additional side

1994 BASE PRICES



DODGE CHEVY TOYOTA DODGE CHEVY TOYOTA

TOTAL HYDROSTATIC PERFORMANCE



You're in total control with our individual transmission control levers AND our floating deck.

Howard has combined two unique features to make our hydro the best in the industry. First, dual hydro control levers that let the operator set the speed of each drive wheel individually for straight tracking and adjustment on hillsides. Second, our floating deck system oscillates 9" to cut those undulating, tough conditions without gouging and scalping to ensure a manicured cut on your project.



Twin hydro-control levers



18155 Edison Ave.
Chesterfield, Missouri 63005
Phone (314) 532-7000
FAX (314) 532-0201


Circle No. 107 on Reader Inquiry Card



Floating deck system

Try our Hydro Power Walk Behind on your job site and compare. We just out-perform the competition.

IF YOU HAVEN'T USED BARRICADE YET, LISTEN TO THOSE WHO HAVE.



Bill Womac
Superintendent
Dunwoody Country Club
Dunwoody, Georgia

"Barricade's extra length of control is an advantage to us in the South, especially with our long, hot growing season. Overall, Barricade has proven to be more cost-effective for us than other preemergence herbicides we've tried. We plan to use more next year."

Barricade

HERBICIDE

The Precision Performer.



Steve Carr
Superintendent
Pocasset Golf Club
Pocasset, Massachusetts

"Barricade makes it easy for us to fine tune our control program, as the length of control is determined by the rate used. We've found that one application is all it takes to keep us crabgrass free until the start of cold weather."

DISTRIBUTED BY:

AG RESOURCES, INC.
BRANDON, FL

AGRA TURF
SEARCY, AR

AGRI TURF, INC.
HATFIELD, MA

THE ANDERSONS
MAUMEE, OH

BENHAM CHEMICAL CO.
FARMINGTON HILLS, MI

CANNON TURF SUPPLY, INC.,
INDIANAPOLIS, IN

ESTES, INC.
WICHITA, TX

FISHER & SON, CO.
MALVERN, PA

E.H. GRIFFITH, INC.
PITTSBURGH, PA

GEORGE W. HILL & CO.
FLORENCE, KY

HOWARD JOHNSON'S ENT.
MILWAUKEE, WI

KNOX FERTILIZER CO.
KNOX, IN

KOOS, INC.
KENOSHA, WI



Dick Stuntz
Superintendent
Alvarado Country Club
Lawrence, Kansas

"With the amount of flooding and heat we've had this season, most preemergence herbicides would have fizzled out by now — but not Barricade. It's still giving us excellent control."

John Freeman
Superintendent
Dearwood Country Club
Kingwood, Texas

"Our preemergence weed control program was too expensive. Rather than cut back we switched to Barricade. Now, for the same dollars, we not only get excellent control, but also more coverage. Plus, we have the advantage of using multiple applications and getting better control of a broader spectrum of weeds."



Barricade.
Performance that's
got everyone talking.
Your best choice for
consistent season-long
control of crabgrass,
goosegrass, foxtail, spurge and
other problem weeds.
For more information
call your distributor or
1-800-435-TURF



SANDOZ Use pesticides effectively. Read and follow label instructions carefully.

Barricade® is a registered trademark of Sandoz Ltd. © 1993 Sandoz Agro Inc.

LEA'S GREEN MEADOWS, INC.
TEMPLE HILLS, MD

LEBANON TURF PRODUCTS, INC.,
LEBANON, PA

PENAGRO T&O PRODUCTS
BOONE, NC

PENNINGTON ENTERPRISES, INC.,
MADISON, GA

PROFESSIONAL TURF SPECIALTIES, INC.,
ST. CHARLES, MO

REGAL CHEMICAL, CO.
ALPHARETTA, GA

TURF INDUSTRIES, INC.
HOUSTON, TX

TURF PRODUCTS LTD., INC.
W. CHICAGO, IL

TURF SUPPLY COMPANY
EAGAN, MN

UNITED HORTICULTURAL
SUPPLY, SALEM, OR

VIGORO INDUSTRIES, INC.
WINTER HAVEN, FL

WILBUR-ELLIS COMPANY
KENT, WA

Circle No. 120 on Reader Inquiry Card

THE COMING OF WINTER



Chemicals, irrigation systems and equipment must be carefully prepared to cope with sub-freezing temperatures in the northern U.S.

■ It's November, and winter is just around the corner, for those parts of the country that have such worries.

If you're anticipating snow, freezing temperatures and a general cessation of business in the coming months, you'll probably want to winterize the plants in your care to avoid low-temperature damage. However, just as important are chemicals, irrigation systems and equipment because they, too, can also be damaged by low temperatures and/or long storage. So here are some ways you can make sure you'll be ready to get back to work next spring.

CHEMICALS

Any properly constructed and approved chemical storage structure will provide protection for granules and dry formulations. Only a heated storage facility should be used for liquids.

Always try to plan your purchases so that you minimize the amount of material you might have to carry over to the next season.

Never store pesticides with food, feed, drugs or clothing.

Granules—Bags must be kept dry. Any opened bags remaining would probably be best used before winter. Open bags can allow active ingredient to volatilize and escape. Protect from extremely high temperatures. Try to cover the bags with a protective plastic sheet. Always store them up off the floor, at least on a pallet.

Wettable powders, dry flowables, dispersible granules—Protect from extremely high temperatures, moisture and direct sunlight. Some packaging could be damaged by water. Keep in clean, dry area out of sunlight, also off the floor.

Liquids—Whether they are petroleum- or water-based, liquids need to be protected from freezing conditions. Under low temperatures, the active ingredient can "salt out" or precipitate

and it may be difficult to get it back into suspension or solution. Worse yet, you may not realize that it precipitated and pour only carrier or highly concentrated active into your spray tank next spring. Freezing of water-based formulations could rupture the container.

Source: Doug Carlson, DowElanco

IRRIGATION SYSTEMS

Irrigation systems must be completely drained and shut down to prevent damage due to freezing water.

Golf course and large commercial systems need a high volume air compressor. To avoid damage to PVC pipes, use a length of 1½- or 2-inch galvanized pipe to dissipate the compressor heat prior to entering the irrigation pipes.

1) Close the main water supply valve.

2) Connect the air compressor (800 cfm or larger with pressure regulator adjusted to the lowest possible pressure, which will adequately remove water from the system).

3) Open drain valves and/or quick coupler valves at the far end of the system, maintaining air pressure on the system. The key is air volume (cfm) not pressure.

4) When all water has been drained, close drain valves and/or remove the quick coupler.

5) Activate each automatic valve manually from the controller, allowing each valve to remain on until all water has been expelled.

6) Electric valve-in-head and hydraulic normally closed systems need a minimum air pressure of 35 psi at the head to activate the valve and may require additional time to open.

Electro-mechanical controllers: Some are equipped with a heater resistor designed to generate heat within the timing mechanism compartment. In most areas of the country, where this heat will prevent condensation and rust formation, the AC power should remain on at the

controller while disabling the timing mechanism by placing the manual/automatic switch into the manual position.

Solid state controllers: Moisture can present a very costly problem. Due to varying climatic conditions, contact your distributor for winterization recommendations.

Source: The Toro Co.

VEHICLES

Battery—Remove the battery and clean it. Store in upright position. Maintenance-free batteries should be stored in a cool, dry place. Storage above 80 degrees increases self-discharge. If wet batteries are discharged, the electrolyte will freeze when stored below 20 degrees. The battery should be checked every 60 to 90 days and recharged if necessary.

Tires—Clean tires thoroughly. Tires should be checked at regular intervals and reinflated as necessary to keep them at recommended pressure. Store so tires are protected from the sunlight.

Radiator—If storing more than a few months, drain the coolant. Open cock at bottom of radiator and remove pressure caps to drain water completely. Leave cock open. Hang a "no water" note on pressure cap. Since water may freeze, it is very important no water is left in the machine.

Tractors with wing mowers—Store outrigger and wing units in the raised position. Tie mowers up to relieve strain on hydraulic system. Front and center units are stored in the lower position on blocks so weight is not on tires.

Source: Larry Evans, Lawn & Turf

ENGINES

1) Operate until fuel is completely consumed.

2) Drain the fuel from the tank, then backflush the in-line fuel filter.

3) While the engine is still warm, drain the oil from the crankcase and refill with fresh oil.

4) Clean the engine's exterior. Paint exposed metal or lightly coat with rust-preventive oil.

5) Store in dry and protected place.

Source: Larry Evans, Lawn & Turf

We're committed to you from the ground up.



United Horticultural Supply™

The name and the organization are new – United Horticultural Supply – designed specifically to serve golf course superintendents, landscape and lawn care professionals in addition to the nursery and greenhouse industry.

United Horticultural Supply provides a broadbased line of premium quality, environmentally sound products.

Our professional turf product line includes fertilizers, chemicals and seed. Many of these items will be marketed by United Horticultural Supply under the TURFGO™ brand name.

GROWER'S CHOICE™ will be the brand label for many of our nursery, greenhouse and non-turf specialty market products.

Each geographic division of United Horticultural Supply is backed by the United Agri Products company and is

part of a strategically designed system of warehouses, inventory and transportation networks.

These divisions are designed to provide you with unparalleled service by being tailored to meet local needs while at the same time uniting together on national concerns.

If United Horticultural Supply is the type of company you are interested in doing business with, call 800-UHS-6417 for information on the representatives in your area.



**United
Horticultural Supply**

Working To Enhance Our World

Sand, silt and clay: the soil minerals

By understanding the properties of soil texture classes, you are better able to develop management strategies best suited to soil limitations.

by Dr. Charles H. Darrah III
CLC Labs

■ Sand, silt and clay are the major solid components of soils.

A volume of soil is typically composed of the approximate percentages seen in Fig. 1 on page 26. However, these proportions may change considerably as they are modified by adding organic matter, tilling, irrigating, becoming compacted, and otherwise influenced by man.

The mineral portion of soils is made up of weathered rock called parent material. The chemical nature of parent material varies greatly. The many natural forces, called weathering, that degrade parent material into soil also vary greatly. These two factors account for the vast differences in soils.

Soil with particle sizes less than 2mm is classified into sand, silt and clay. The USDA has established a classification of sizes. However, they are not the same as the American Society of Testing Materials (ASTM) classification system used by civil engineers.

Landscape and topsoil suppliers often run into difficulty meeting topsoil specifications when the ASTM system is used.

Clay—The smallest particles in soils are called clay. Individual clay-size particles are only visible under an electron

microscope.

Because they are so small, they are the source of the more important soil chemical properties. Clays play a major role in the retention and release of plant nutrients. They also help to retain and stabilize the beneficial products of organic matter decomposition called humus.

Because clay particles are so small and have very large surface areas, they retain water very well. They have a high water-holding capacity. However, because of the small size and surface area of clays, most of the water in a clay soil may not be available to plants.

In the landscape, clay soils often display droughty tendencies because of their low water infiltration rate and low available water content.

Clay particles tend to be sticky. In urban soils and sports turfs, this frequently leads to compaction. Compacted soils have a high mineral content per unit volume, while water and air content decreases to a point where turf and ornamental plants my no longer survive.

Silt—Silt particles are intermediate in size. Likewise, their chemical and physical properties fall between those of clay and sand. Silts retain and release fewer plant nutrients into the soil solution than clays. However, silty soils are still considered quite fertile.

Silt particles tend to be spherical in shape. Because of their size and shape, silts readily retain water. But unlike clays, a larger amount of this water is available to plants. Silts have less tendency to be sticky and therefore break up more easily under cultivation.

Compared to clay soils, silts are easier to work into a seedbed and are less likely to form a crusty surface. Aeration cores break down more readily and silty

soils are less sticky and easier to work with when wet.

Sand—Sands are the largest of the soil particles. They range in size from 2mm down to 0.05mm and are essentially undecomposed parent material.

Some sands may be rich in certain plant nutrients, but most are very low. Sands generally have a very poor ability to retain nutrients applied as fertilizers. Therefore, sandy soils are best managed by light frequent applications of fertilizers or by using slow-release fertilizers.

Sands typically have poor moisture-holding capacity and drain freely. However, most of the water they hold is readily available to the plant. Sandy soils tend to be droughty and have a high irrigation requirement. An important physical aspect of sands is their ability to resist compaction and retain adequate pore spaces for air and water.

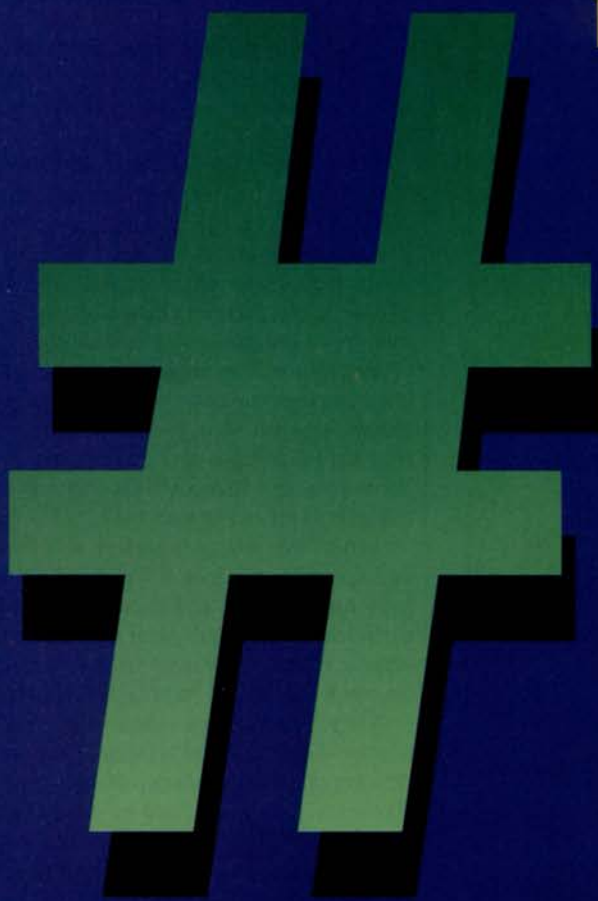
How well a sand maintains the proper balance of air and water depends on the distribution and uniformity of particles within the sand size range. Specifications for golf greens and rootzone mixes call for a very specific sizing of sands and a high degree of uniformity within these size ranges.

When clayey or silty soils are amended with sand, the physical properties of the soil typically worsen. However, if the correct size, uniformity and quantity of sand is used, soil physical properties can be improved. A physical analysis of the soil and sand is required, and proper mix volumes must be determined.

Texture—Soils are typically made up of sand-, silt- and clay-sized particles in an almost infinite mix. Soil scientists have developed a classification of soils that assigns 12 texture classes, according to

continued on page 26

UNBEATABLE WEED CONTROL



PRE-M
THE Pendimethalin.

LESCO

PRE-M Pre-emergent Herbicide

Since 1985, LESCO's PRE-M preemergent herbicide has been recognized as the industry standard for weed control. No other preemergent herbicide combines outstanding control of annual grass and broadleaf weeds at the most economical price.

Simple to use and available in four formulations, PRE-M's proven, consistent performance is unbeatable. Ask your LESCO Sales Representative about the best preemergent herbicide available today:

PRE-M.

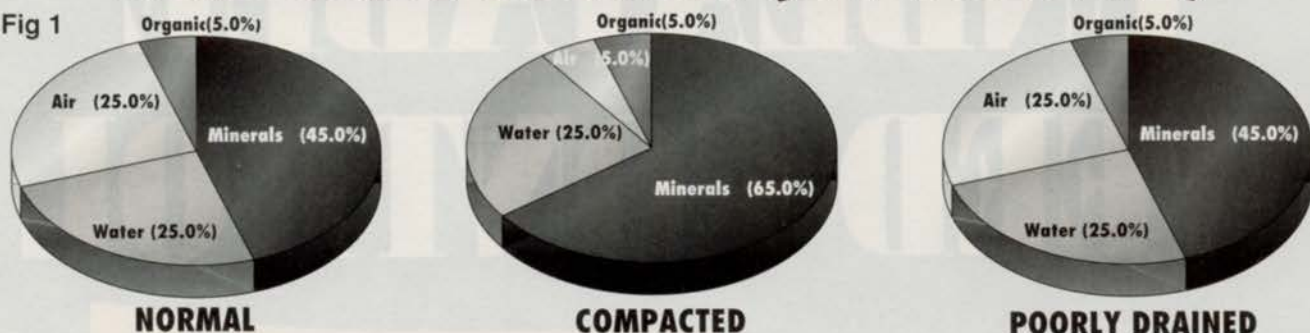
Net 10 lb. #011965

LESCO

20005 Lake Road • Rocky River, Ohio 44116 • 1-800-321-5325

SOIL COMPOSITION (BY VOLUME)

Fig 1



WALKER helps CLEAN CUT make their name



There's a place for "chop and drop" mowing at jet-like speed, but that wasn't what Dennis Dautel and Rex Gore had in mind when they started **Clean Cut Inc.** back in 1985. The Austin, Texas based company organized for high visibility landscape maintenance with a pursuit of excellence - and it shows with 16 environmental improvement awards in the past three years from national and regional landscape associations like ALCA, TALC, and PGMS. They wrote to tell us Walker is a part of all this:



* We have been using your machines for the past four years and currently operate 12 machines. Your machines have given us a tool to produce quality turf in a fast, efficient and cost effective manner - Walker has given us a "clean cut" while keeping maintenance costs low. Please accept our appreciation for producing a quality product which, in turn, helps us produce beautiful landscapes.*

Discover Walker mowing quality and efficiency to help make your name.



WALKER MFG. CO. • 5925 E. HARMONY RD. • FORT COLLINS, CO 80525 • (303) 221-5614

their range of particle sizes. The textural triangle is used in conjunction with a laboratory analysis to determine the texture class of a soil.

Many landscapers are often faced with specifications for soil textures that may not be present on site, and may be difficult to find. In constructing new landscapes, layering problems often occur when soils two or more texture classes away from each other are placed on top of another.

Because of the unique chemical and physical properties that sand, silt and clay impart to a soil, it is important to recognize the advantages and disadvantages of the soil texture classes and their impact on managing turf and ornamentals.

Structure—Organic matter also plays an important role in soil structure. Sands have no structure and occur as discreet particles. As the content of silt, clay and organic matter increases, individual particles stick together to form larger particles.

Silty and clayey soils will have improved drainage and aeration when well structured. Unfortunately, when silty and clayey soils are pulverized or compacted, they lose their structure. The addition of organic matter to silty or clayey soil will help form a well-structured soil over time.

Sand, silt and clay form the mineral particles that compose the major volume of a soil. An understanding of soil texture is important to avoid problems during construction of turf and landscape areas.



—The author is a consulting agronomist and general manager of CLC Labs, 325 Venture Dr., Westerville, OH 43081.

LAWN CARE INDUSTRY

Serving the needs of the professional lawn care operator

STATE OF THE INDUSTRY REPORT

Chemical lawn care sales flat, but mowing, add-ons boom

S
L
O
W



G
R
O
W
T
H

1,000 surveys mailed, 221 returned; service 'mix' appears to be swinging slightly, toward add-ons; speculation that customer base eroded because of the economy.

■ Sales of chemical lawn care services remained flat during 1993, according to LANDSCAPE MANAGEMENT's 1993 "State of the Lawn Care Industry" survey.

Sales of chemical lawn care services for 1992 and 1993 both totalled about \$1.7

billion, according to the last two annual surveys. However, the lawn care industry apparently experienced about a 4.2 percent growth from 1992—almost all in add-on services, including lawn mowing.

The 1993 survey shows that the indus-

try's mowing and allied revenues increased from a total of \$700 million to \$800 million in 1993. (Companies surveyed were those that define themselves as "lawn care service companies and custom chemical applicators" on BPA reader qualification cards.)

Revenues projected to the 7,175 such companies with subscriptions to LANDSCAPE MANAGEMENT magazine, then, amount to more than \$2.5 billion overall, compared to \$2.4 billion last year.

Because the survey indicates that more than half of the companies raised prices in 1993, industry experts speculate that, nationally, the industry's customer base actually eroded in 1993 because of the economy. This caused no net growth in chemical lawn care revenues.

Mowing and allied services, though, are apparently becoming more of a staple in the lawn care "mix." Last year, 27.0% of lawn care revenues were attained through mowing and allied services; this year, that number increased to 39.2%. Aeration services also grew, from 3.6% of the average customer "mix" to 5.2%.

Other statistics of note from the 1993 survey:

● The outlook is brighter for 1994: 74.2% of the sample projected growth this year, while 81.2% forecast growth in 1994. When asked specifically how much growth their business experienced in 1993, the average was 15.3%. Smaller companies were reporting growth of up to 300%. Moreover, the respondents are predicting an average growth of 18.0% next year.

● More than one-third (34.1%) of all respondents have not decided if they will increase prices in 1994. More will definitely increase prices (37.3%) than will

not (28.6%).

● The fastest-growing business cost is insurance, says 26.5% of the sample. Next is labor, named on 23.7% of the questionnaires, followed by equipment (21.0%) and compliance with government regulations (16.9%).

● Despite the shaky economy, lawn care company owners remain true to their visions. Almost one-third (31.4%) would not sell their business at any price, they say. Also:

—41.9% said they would not sell the business unless someone made them "an offer they couldn't refuse;"

—13.8% said they would sell the business "only for a profit;"

—10.5% said they would consider "any offer" to buy the business;

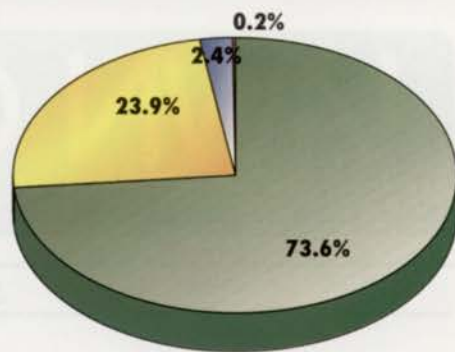
—2.4% said they are seriously considering folding the business.

● More than half (54.1%) thought that the Clinton administration's proposed new income and fuel taxes would have a moderate effect on business. An additional 24.8% thought the taxes' effects would be severe, while only 21.1% thought the effects would be "little or none."

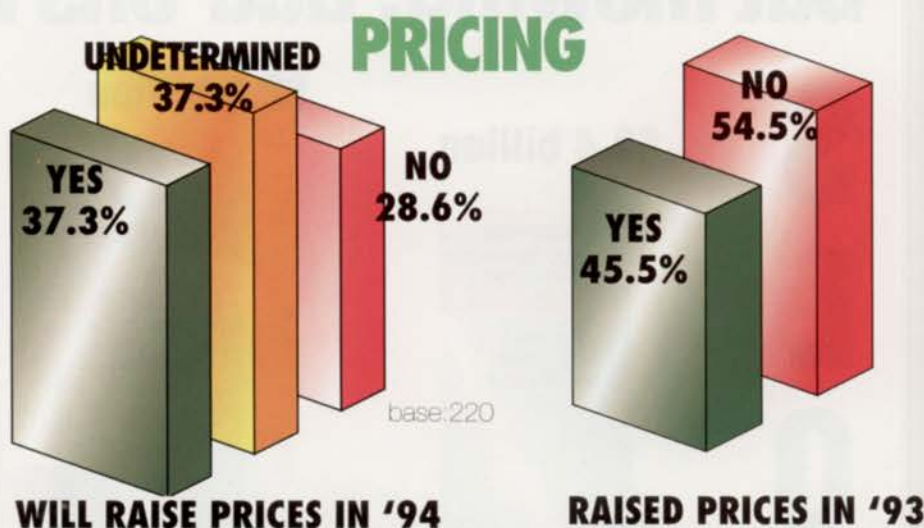
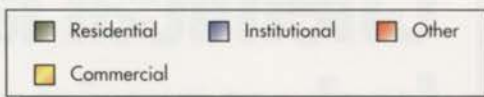
● Nearly one-third (32.1%) of the sample is less optimistic about the stability of the lawn care industry than before, while 20.6% are more optimistic. The remainder of the respondents have an unchanged opinion.

—Jerry Roche

REVENUES FROM LAWN CARE ACCOUNTS, 1993



base:220



REVENUES FROM LAWN CARE VS. MOWING ACCOUNTS, 1993



RISING COSTS

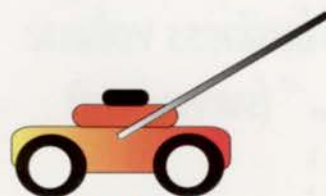
QUESTION: "Which business cost is growing fastest?"

base:219



LABOR
23.7%

INSURANCE
26.5%



EQUIPMENT
21.0%



GOVERNMENT REGULATIONS
16.9%

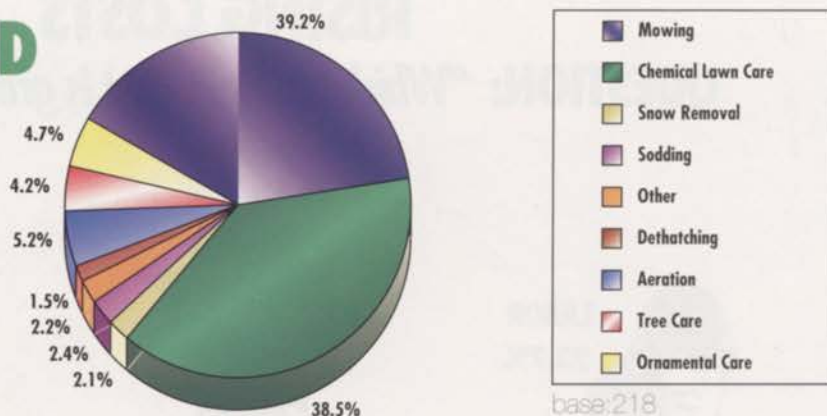
1993 Average Annual Expenditures

| PRODUCT | % SURVEY BUYING | AVG. ANNUAL PURCHASE | PROJECTION TO LCO READERSHIP |
|------------------------------------|-----------------|----------------------|------------------------------|
| Tractors | 17.2 | \$8,421.21 | \$10,385,000 |
| Domestic pick-up trucks | 51.6 | \$17,771.71 | \$65,748,500 |
| Dry fertilizer | 84.9 | \$15,183.43 | \$92,486,500 |
| Liquid fertilizer | 34.9 | \$17,276.12 | \$43,255,500 |
| Fertilizer (ornamentals) | 43.2 | \$2,777.11 | \$8,613,500 |
| Fertilizer/herbicides combinations | 31.3 | \$9,296.67 | \$20,845,000 |
| Pre-emergence herbicides | 63.5 | \$4,698.36 | \$21,420,500 |
| Post-emergence herbicides | 62.5 | \$4,954.17 | \$23,269,000 |
| Turf insecticides | 58.3 | \$6,172.32 | \$27,058,000 |
| Turf & ornamental fungicides | 36.6 | \$4,188.57 | \$10,957,000 |
| Turfseed | 57.3 | \$3,765.45 | \$15,478,500 |
| Sod | 26.6 | \$2,752.94 | \$5,246,500 |
| Sprinklers | 21.4 | \$11,968.29 | \$18,337,500 |
| Rotary mowers, > 36" cut | 26.6 | \$3,063.64 | \$6,297,000 |
| Rotary mowers, 36"-50" cut | 21.4 | \$6,046.34 | \$9,264,000 |
| Rotary mowers, < 50" cut | 15.1 | \$8,462.07 | \$9,170,500 |

base:192

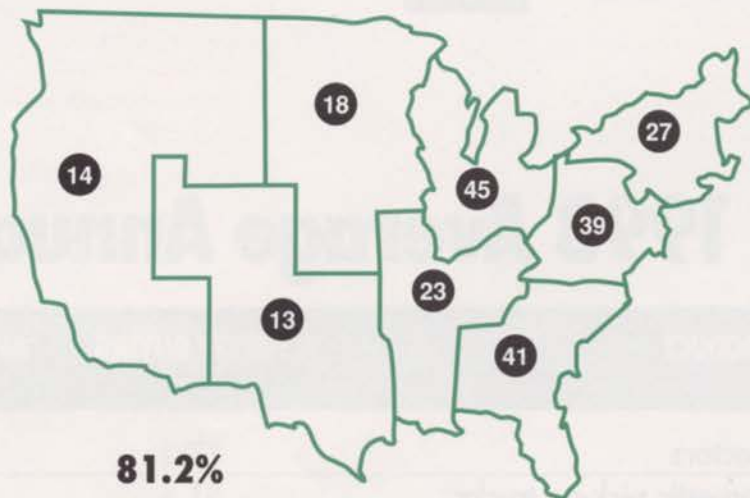
SERVICES OFFERED

QUESTION: "About what percentage of your total business volume is..." (survey avg)

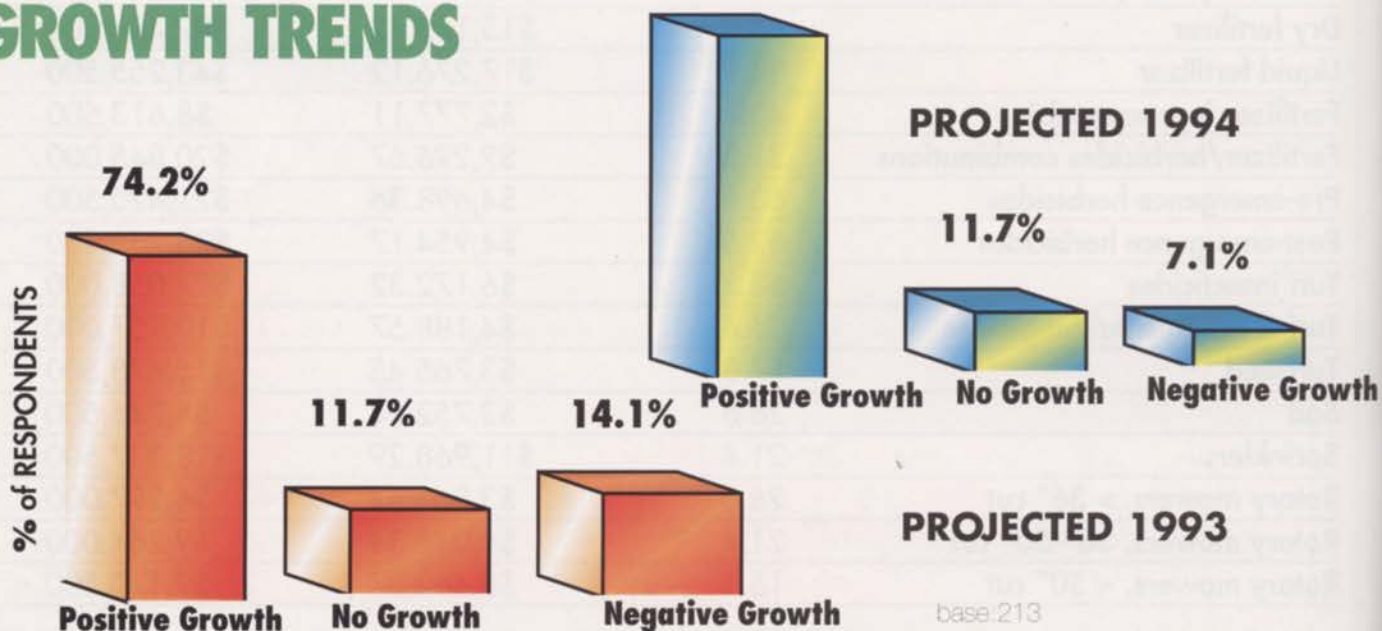


GEOGRAPHICAL DISTRIBUTION OF RESPONDENTS

| | | |
|------------------|------------------------------------|----|
| NEW ENGLAND = | ME, NH, VT, MA, RI, CT, NY | 27 |
| MID-ATLANTIC = | NJ, PA, WV, DE, MD, DC, VA | 39 |
| SOUTH ATLANTIC = | NC, SC, FL, GA, AL, PR | 41 |
| MID-SOUTH = | KY, TN, MS, AK, MO, LA | 41 |
| MIDWEST = | OH, IN, IL, MI, WI | 45 |
| MIDWEST = | MN, IA, NE, KS, SD, ND | 18 |
| SOUTHWEST = | TX, OK, NM, AS, CO UT | 13 |
| FAR WEST = | CA, NV, OR, WA, ID, MT, WY, AK, HI | 14 |



GROWTH TRENDS



Combined TruGreen/ChemLawn operations are on fast track

UPDATE!

President Don Karnes and a lean management team steers the industry leader toward support of branch operations and field specialists.

■ Elvis, by most accounts, is dead.

Elaborate displays of flowers, most of them plastic, line the walkways at Graceland. They mark yet another anniversary of his untimely departure. The whispering and, on this steamy August morning, perspiring faithful shuffle single-file by his final resting place. Two days and 16 years ago, Elvis died. We think.

Drive 20 minutes along a freeway to east Memphis, Tenn., and enter a primly landscaped office park containing the ServiceMaster Consumer Services (SMCS) building. There are two things of note about this building that looks suspiciously like a glass-and-steel cracker box stood on end.

Number one: five SMCS businesses doing more than \$1 billion in sales in 1993 operate out of this single building.

Number two: There have been no Elvis sightings, not a single one, in the vicinity of the SMCS building. Ever.

But, a few short years ago, it seemed just as unlikely that TruGreen would buy and merge with its longtime nemesis ChemLawn. Yet it did in May, 1992.

And, grins Don Karnes who has yet to make a pilgrimage to Graceland, "lawn care is fun again."



'As I recall, we haven't sprayed one lawn out of our corporate office this year.'

—Don Karnes

Nothing fancy—Karnes is president of TruGreen/ChemLawn. His office is more than *just* an office, but not a whole lot more. Comfortable. Functional. A few photographs. Nice view of a parking lot. That's fine with him, says Karnes, a slender man, medium height, his brown hair flecked with gray.

After all, the real action is taking place on the approximately 1.2 million lawns and landscapes that TruGreen/ChemLawn specialists serviced in 1993.

"Our front-line people, that's where the rubber meets the road. And that's where we have to take care of our busi-

ness," he insists.

"As I recall, we haven't sprayed one lawn out of our corporate office yet this year. Not one. I don't think we will either."

(The idea that the business of lawn care begins on each single lawn isn't something that just popped into Karnes' head. He started his own career on the business end of a spray wand. He opened TruGreen's Grand Haven, Mich., office in 1979. Every lawn he sold that summer, he also got to spray.)

Smiles spread easily over Karnes'

lean, tan face these days.

Made in heaven?—The marriage of longtime business rivals TruGreen and ChemLawn—of which he had more than a passing involvement—is off to a good start. Made in heaven? Not even he will go that far. TG/CL, after all, had to resolve 121 franchise issues in the weeks and months following the acquisition. All but a few are now wrapped up, he maintains.

Considering that \$90-million-in-sales TruGreen gobbled up \$300-million-in-sales ChemLawn, most industry observers, even competitors, acknowledge that Karnes and his staff have a firm hand on the reins and are moving TG/CL forward. Pronto.

Indeed, the combination of TruGreen and ChemLawn looks more and more like a genuine fit. Specifically, ChemLawn offers its wealth of operational and technical expertise. TruGreen adds its considerable marketing know-how.

TG/CL sales will approach and maybe exceed \$430 million in 1993, making it about nine times larger than the next largest lawn care company in the United States. More tellingly, ChemLawn, now part of a bigger whole, is making money again.



Ron Anderegg started with TruGreen in '79



Dave Slott heads West Division

"This year we're exceeding any expectations our parent company (ServiceMaster) had," says Karnes. "We've had double-digit growth. Last year we made a profit. And we'll certainly make a profit this year."

(It's been since 1988 that the words profit and ChemLawn, then owned by EcoLab, appeared in the same sentence.)

Specialists respond—Karnes says the most fundamental reason why TG/CL exceeded 1993 sales and profit goals has been the on-going reinvigoration of its branches and their teams of lawn specialists. Productivity jumped 25 percent after specialists were freed of sales responsibilities and offered a new incentive package, claims Karnes.

The company's direction, he says, couldn't be clearer.

If you're on TG/CL's team, you're either improving clients' properties, or you're making it easier for specialists to deliver these services.

"The sole purpose of all of our staff people is to support the field effort. I don't want anyone walking around arrogant or cocky and thinking, well, I'm here in corporate, and they're down there in the field. That's just not going to happen," says Karnes.

TG/CL emphasized this starting the 1993 season by shaving \$10 million from its corporate overhead.

Working with Karnes in operations are Counsel Bob von Gruben and Government Affairs Director Norman Goldenberg and Finance V.P. Michael Cook. Working with Karnes in Operations and heading up the East and West divisions respectively, are Ron Anderegg and David Slott. They each oversee six of the company's 12 regions. TruGreen has been the only job many of TG/CL's managers have ever had including Slott who started his career with TG/CL as a sales person in Kalamazoo, MI. Anderegg, a former school teacher, started



CL's former research center in Delaware, Ohio, continues to offer technical/research support for TruGreen/ChemLawn.

with TG in 1979, also as a sales person, and admits he has likely held every management post there is at TruGreen.

"From the original team we put together last May 1992, all of those regional people are still there," says Karnes. "That's been one of the keys in providing a consistent direction for the employees."

Branch managers—When TruGreen acquired ChemLawn in May 1992, the company found itself with 204 locations. By mid-August 1992 they numbered 168. Consolidation occurred in markets where both TG and CL had had competing branches, explains Karnes.

"We put the business back into the hands of our branch managers. They run their own businesses, and the average branch size is about \$2.5 million," explains Karnes. "We don't have a lot of people sticking their noses into our branches' business anymore."

TG/CL's president is openly optimistic about the company's future as the lawn care industry leader.

"I believe that more and more people have less and less time to do any of their home services, and they'll always be looking for a professional company to come in and provide these services," he says.

New trucks—To improve service delivery even more, Karnes says, TG/CL has already begun replacing its tanker fleet with smaller, more fuel-efficient diesel trucks. They're quite a departure for either of the former companies. They have enclosed tanks and hoses; they look a little like, and are smaller than, beverage trucks. The company's fleet of 3,500 production vehicles should be replaced over the next 24 months.

"We had some specialists crawl all over the truck, and we asked them about what's good and what's bad with it. It's amazing what you find out when you ask the person who actually uses the equipment," says Karnes. "And these trucks certainly look a little more friendly in the neighborhood."

Also, by the start of the 1994 season, some TG/CL specialists are likely to be spooling out and using a new dual-hose system with on-command herbicides for localized treatments.

"We're going to continue to be aggressive in the marketplace," adds Karnes. "But one thing we have to do for sure is to make sure we take care of our core business, and that's lawn and tree and shrub."

—Ron Hall

Losing the focus of lawn care sales

by Ed Wandtke

■ The principal concern of many lawn care companies is reacting quickly to ever-changing customer demands. Owners of lawn care companies comment to me:

● "Customers keep changing their minds about what they want."

● "Customers aren't as loyal as they

used to be."

● "Customers request more service than ever before."

Customers are not your enemies, but you constantly complain about them.

This adversarial attitude becomes apparent to customers when they ask a technician a few questions and receive nothing but a one-word answer. And this guarantees one thing: the company

will lose.

The opportunity for dissatisfaction starts at the time the customer becomes a customer. The lawn care company does not sell the customer; instead, the customer places an order for lawn care services.

Listening to the customer—Sales training should focus on teaching a salesperson to listen and learn what a prospect

expects to purchase. I have found that only a few lawn care salespersons really know what customers want or expect.

Even the lawn analysis form provides customers with only technical information (weeds found, diseases present, grass types). The technician then tells the customer how the lawn care program will solve the problems identified in the analysis. But taking additional time to ask questions about what the customer expects is just not being done. Instead, because the customer asks how much the service will cost, the salesperson assumes that price is the major concern.

Learning what customers expect is critical. Only when you ask a customer, "What do you want your lawn to look like?" will you learn what it will take to satisfy the customer.

Too many technicians complain that sales are difficult to obtain, and that customers are leaving every year. If the technician or salesperson routinely asks customers what they expect when making the estimate, you would not have to worry about routes shrinking during a season.

High-tech sales—Many lawn care companies are finding telemarketing to be a cost-effective method of reaching more prospects. Telemarketers, however, are discovering that many individuals find it easier to say "yes" to a phone call than taking the time to decide what the caller is contacting them about. You must make certain that—when you meet with the prospect—you not only make the sale, but find out what the customer expects his or

her lawn to look like.

Hands-on—The most profitable and successful companies tend to service the customer the same way they operate their businesses—hands on. I believe there is no better way to service the customer than seeing customers and truly listening to them.

Companies that operate like this have three things in common: high employee morale, high profitability and excellent customer retention.

You might say, "It takes too much time to deliver all of that personal attention customers expect." But I say: spend time now working with the customer and the number of renewals will be surprisingly high. Yes, customers will pay for high quality service.

A new approach—You cannot change your sales approach overnight. Technical aspects have probably been the principal focus of your sales training. This was necessary to help you learn what products control a particular turf problem. But recognizing that a lawn has henbit, plantain, spurge or oxalis doesn't mean much to customers. You need to tell them that you can control or eliminate these weeds.

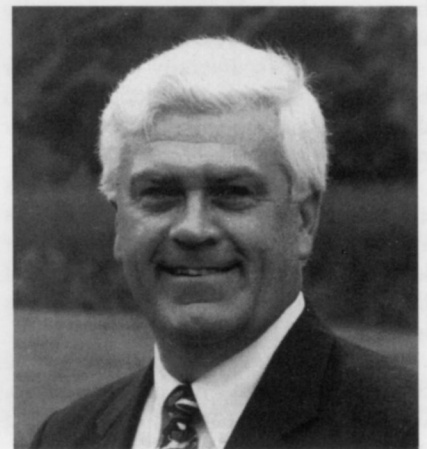
Refocus your sales pitch to emphasize what you can and cannot do. This approach is more easily understood by the customer, but it will take a great deal of effort.

Salespeople and technicians usually say a new approach to sales will not work. Most of them simply do not want to change. They find that asking a customer

what they expect and then listening to their response is a real pain.

The results—The one surefire way to success is to find out what the customer expects. Service each customer like he or she is your only customer. Remember, there is always a price for everything worth having. Only by knowing what a customer wants or expects will your company be able to deliver that level of service.

Try this new approach. You will have to train everyone to ask customers what they expect, and then decide if you can deliver it. Choosing your customers this way may surprise you in the years to come. But customer retention will increase and, along with it, your company's profitability.



—Ed Wandtke is a principle in Wandtke & Associates, 2586 Oakstone Dr., Columbus, OH 43231; (800) 966-3546.

Labor problems are cropping up all over, LCOs say in surveys

Most eligible labor lacks trainability, commitment, work ethic, according to our survey.

■ Steve Bailey, owner of Grassroots Lawn & Irrigation, knows he's a lucky guy.

He says he usually doesn't have much trouble finding good seasonal help because his business is based in Upper Arlington, Ohio, just blocks from

The Ohio State University and its 50,000-plus students.

"The last two or three years, it's worked out pretty good for us," says Bailey. "We had a crew that started with us when they were sophomores. They were all good friends and a good group of guys. If one of them couldn't work, then others could."

But Bailey acknowledges that a business can only grow so large, relying so heavily on part-time help.

"I'm in kind of an in-between situation," he admits. "I'd like have to have

some more people to count on all year, but I have a hard time paying them competitive wages. Providing health care benefits is pretty expensive, too."

To be able to afford more full-time help, Bailey believes he has keep building his company and expanding its service offerings.

His plight isn't uncommon in the green industry where much of the work is seasonal, and entry-level employees receive anywhere from minimum wage to \$8-\$10/hour, depending on regional

employment markets. Both factors contribute to high employee turnover. It's one of professional lawn care's biggest headaches, business owners said over and over again, according to LM's "State of the Lawn Care Industry" survey.

Keeping people—Lou Wierichs of Pro-X Systems in Appleton, Wis., credits a mower service he added to his company several years ago for helping, somewhat, to keep key employees year-round. For a fee, Pro-X will retrieve a customer's lawn mower, tune up, and sharpen the blade. Pro-X promotes this service during the off-season.

But not all new services accomplish this. For instance, Wierichs says Pro-X is getting out of snow removal, partly because nobody in the company really wanted to do it anyway.

"You want to diversify to keep your business growing, but you don't want to diversify so far that you're not doing your main business extremely well."

Sudden and unexpected labor problems are probably the hardest to deal with, says Wierichs who, when a key office worker left, found himself behind the keyboard of the company computer. "It kind of left us in the lurch," says Wierichs.

No commitment—Most LCOs like Scott Sallee of Scott's K-Lawn in Durango, Col., decry the lack of commitment among younger employees.

"It's not so hard to find people, but it's hard to keep them," Sallee says. "There are so many other things to do around here; they all want to go mountain biking or kayaking or one thing or another. We try

to pay more and give bonuses, but it doesn't seem to help much.

"I went through 14 people this year to fill a mowing crew of four. Then, when customers see new people out there mowing every time, they start to get suspect."

Tim Pickering of IPC Lawn Service, Raytown, Mo. agrees.

"There seems to be a real lack of people taking pride in their work and committing to their job, especially the young guys who are most able to do this kind of work," Pickering says. "The biggest reason I haven't grown faster is the employee issue. We're to the point where we need 10 or 12 men we can count on, and we've got six."

Pickering may hire legal aliens—Mexicans—through an employment service in Texas. The service, Pickering says, guarantees the labor.

Paul Cronin of Cronin Landscaping in Northampton, Mass. says school-age kids are not an option in his market.

"I can get high school kids to work, but they can only work a certain amount of hours—after school and summers," Cronin says. "You can't get them to work every day and not the whole summer. When you *do* get them, they don't show up. The work ethic isn't there.

"I don't know why this generation doesn't want to work; when I was a kid, I was always working."

Defining services—Michael Zeller of Zeller Landscape & Tree Care in Lykens, Pa. has had to formulate his business around a lack of employees.

"I can't grow in the directions I want because the people aren't available,"

Zeller says. "So I try to get away from labor-intensive work. I'm into roadside and utility brush control, IPM, pest control, turf management, environmental testing. They're labor-intensive, but they're technical.

"NAFTA will mess things up big, too, because they'll take the factory jobs and ship them out, and all that'll be left is basically unskilled labor."

David Clark of Clark's Landscaping in Telford, Pa. has another solution to the labor problems especially evident in the East.

"We can't compete against bigger companies," Clark admits. "They're taking ethnic labor and billing at \$12-15/hour and we have to bill at \$20-25/hour. Our \$8-10/hour pay is fair, plus we're paying full benefits. So we're getting commercial jobs like retirement communities where customers want...people they can speak to...on their property."

Robert Welker of Lawn Manicare in St. Louis has had "big time" employee theft and attitude problems this summer, even though he has but three employees.

He says everything's back to normal now. And even though problems will continue to crop up, Welker sees a stronger green industry in the future.

"Manufacturers will be going abroad for cheaper labor," Welker notes, "so the remaining service industries will be strong, especially since they use both men and women in the workforce."

—Ron Hall, Jerry Roche, Terry McIver

LANDSCAPE MANAGEMENT

'WE KNOW YOUR TURF'



ADVANSTAR
COMMUNICATIONS

EDITORIAL STAFF

JERRY ROCHE, Editor-in-Chief
TERRY McIVER, Managing Editor
RON HALL, Senior Editor
MICHELLE THERRIEN, Graphic Designer
KEITH FAZIO, Art Director
MAUREEN HREHOICK, Group Editor

BUSINESS STAFF

JON MIDUCKI, Publisher
ROBERT EARLEY, Group Vice President
KEVIN J. CONDON, Publishing Services Director
JUDY PAWLOWICZ, Production Manager
ROSY BRADLEY, Senior Production Manager
DEBI HARMER, Production Director
DIANE BIAS, Administrative Coordinator

ADVERTISING OFFICES

CLEVELAND (HEADQUARTERS) OFFICE
7500 Old Oak Blvd.
Cleveland, OH 44130
Phone: (216) 243-8100
Fax: (216) 891-2675
JON MIDUCKI, Publisher: (216) 826-2855
ROBERT EARLEY, Group Vice President
ANNE LANGHENRY, Promotion/
Research Mgr.: (216) 891-2739
BRIAN KANABA, Sales Representative:
(216) 891-3155
ANITA KNIGHT, Sales Representative:
(216) 891-3172
DIANE BIAS, Administrative Coordinator:
(216) 891-2750
SEATTLE OFFICE
1333 NW Norcross
Seattle, WA 98177
Phone: (206) 367-5248
Fax: (206) 367-5367
BOB MIEROW, West Coast Representative

This supplement to Landscape Management magazine's November, 1993 issue is published by Advanstar Communications, Inc. Copyright © 1992 by Advanstar Communications, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

LM GRAPEVINE

Michigan State University professor **Dr. Joe Vargas** has released the new, second edition of "Management of Turfgrass Diseases" through Lewis Publishers. A caller to **LM** said it was full of excellent photos and charts, a valuable reference as a field guide or textbook. "It reads the way Joe talks," the caller—who didn't want his name published—said. The book is available by calling Lewis Publishers at (800) 272-7737. Cost is \$59.95.

The move to grass is back in the great Midwest. Word comes that the Kansas City Royals will install natural grass, as will the University of Missouri. The Royals' field—under the direction of **Chip Toma**—will be in place by the start of the 1995 season. Meanwhile, the Missouri effort will be led by **Dr. Dave Minner**, who is on the university's turfgrass staff and is an active member of the Sports Turf Managers Association. The MU change was precipitated by the school's alumni, who voted for natural grass by a margin of 26-1. We received a copy of the *Missouri Alumnus*, which conducted the fax poll, from former **LM** managing editor **Heide Aungst**. Athletic director **Dan Devine** says the university will install grass—either over, or in place of, the existing Omniture—in time for the 1995 season. The move will give Mizzou the only natural grass playing surface in the Big Eight Conference.

While Dr. Vargas has already come out with a new version of his turf text, another well-known turf personality is still working on his. **Dr. Al Turgeon** of Penn State University is working on the Fourth Edition of "Turfgrass Management," due to be released in middle to late 1995. "The second and third editions involved relatively light revisions; however, the fourth edition will be extensively modified and reorganized," he tells **LM**. The current edition is available through Advanstar Marketing Services, phone number (216) 826-2839.

TruGreen/ChemLawn could begin offering lawn care franchises within a year or two, says President **Don Karnes**. "There are an awful lot of lawns out there in smaller communities," he told **LM** this past August. "We'd love to have franchises in them."

Larry Holkenborg Nursery, Sandusky, Ohio, sent six employees to "A Gift to the American People" at Arlington National Cemetery Oct. 16, says **LM** senior editor **Ron Hall**, who visited the nursery while working on an article. In all, about 250 volunteer tree care professionals—under the auspices of the National Arborists Association—pruned, fertilized and cabled trees in the cemetery. Holkenborg is an NAA past president.

Dr. Jim Watson has been honored by his former employer, The Toro Company, which will underwrite the Dr. James R. Watson Fellowships. The Minneapolis-based equipment manufacturer has agreed to a minimum of \$100,000 in support for the GCSAA scholarships over the next four years. Dr. Watson, now in semi-retirement, has been in the turf industry for 40 years. He is the mentor of a vast number of professional turfgrass managers, a longtime friend of the **LM** editorial staff, and perhaps the most respected person in the turf industry. Way to go, Dr. Jim!

Heated ballfields? Now we've heard everything. According to a press release received in the **LM** offices, the next trend in sand-based athletic fields is heating the fields. So says **Chuck Dixon**, president of technical operations for Turf Diagnostics & Design, Olathe, Kans. "Heating fields will make them safer during the periods that the field would normally be frozen," Dixon says. "It will also increase the performance of the surface by providing better footing for athletes."

READERS! Got an item for "LM Grapevine?" Call us at (216) 826-2830 between 8:30 a.m. and 5 p.m., Eastern Time.

The Cowboys

(Super Bowl Champions, 1993)

The Bluejays

(World Series Champions, 1992)

THE BULLS

(NBA Champions, 1992)

The Penguins

(Stanley Cup Champions, 1992)



Great Teams Achieve Great Results

If you want a winning — and profitable — lawn care season, here's a hot tip: Make The Andersons Professional Turf™ fertilizers, incorporating TEAM herbicide, part of your starting line-up.

The championship numbers to scout out are:

- 25-3-8 with TEAM or
- 20-2-6 with TEAM

Either single application product gets you double-duty results for higher efficiencies and applicator economies. And because of The Andersons mini-granular particle sizing, these professional products get right through the turf canopy... and right down to business.

Find out more today.

1-800-225-ANDY

The Andersons

* TEAM is a Registered Trademark of DowElanco



Not everyone is lower cost of using

You'll be happy to know you can now get the superior crabgrass control of Dimension® turf herbicide at a lower cost per acre. So you don't have to be afraid of the cost of using Dimension ... unless you're a clump of crabgrass!

That means now is the most affordable time to step up to Dimension. And if you're already treating your tees and greens with Dimension, why not start using it on your fairways and roughs, too? It's safe for most turfgrasses and *completely* non-staining, so you can apply it with confidence anywhere on your course.

Dimension fits easily into any turf management program. It controls crabgrass in both pre- and early postemergence stages, giving you the widest application window of any turf herbicide. Plus, you can get Dimension in either a liquid formulation or as fertilizer granules. No other herbicide gives you so much flexibility.

ALWAYS READ AND FOLLOW LABEL DIRECTIONS FOR DIMENSION TURF HERBICIDE. Dimension® is a registered trademark of Monsanto Company. Barricade is a registered trademark of Sandoz, Ltd. Team is a registered trademark of DowElanco. © Monsanto Company 1993 DIM-30004



happy about the Dimension.[®]

Join the growing number of satisfied golf course superintendents who've switched to Dimension. We'll be happy to give you the name of your distributor rep and our FREE guide, "Ten steps for keeping crabgrass (and your budget) under control." Just send in the attached coupon or call: 1-800-276-1811.



Yes! I'd be happy to get a copy of the FREE guide, "Ten steps for keeping crabgrass (and your budget) under control," plus the name of my distributor rep for Dimension[®] turf herbicide.

Name _____
 Title _____
 Course _____
 Address _____
 City _____
 State _____ Zip _____
 Phone(____) _____

1. What crabgrass product are you currently using?
 A. Dimension B. Barricade¹ C. Pendimethalin
 D. Team¹ E. Other _____
2. How satisfied are you with your current crabgrass program?
 F. Very Satisfied G. Satisfied
 H. Dissatisfied I. Very Dissatisfied
3. How many acres do you treat for crabgrass? _____ acres

Mail coupon to: Dimension Golf Guide
 P.O. Box 410143
 Charlotte, NC 28241-0143



DIMENSION[®]
Turf Herbicide
 by Monsanto

The toughest thing to emerge since crabgrass.

Dimension[®] is a registered trademark of Monsanto Company.
 © Monsanto Company 1993 DIM-30004-BRC

Circle No. 116 on Reader Inquiry Card

GOLF 'SCAPING

Buying specialized equipment

Here are some concepts to consider when hunting for that 'dream machine' that does exactly what you want it to do.

by Steve and Suz Trusty

■ As turf care has become more exacting, the equipment used has become increasingly specialized. To intelligently purchase a piece of specialized equipment, you must consider function, productivity, durability, minimal downtime, and innovation.

Specialized equipment must be innovative enough to invoke the "oh yeah" response—as in, "Oh, yeah, that's what I was looking for" or "Oh, yeah, that's how to tackle this problem."

It must perform a certain function or set of functions more effectively than cur-

rently-available equipment.

It must increase productivity by making turf care easier, faster, more efficient, less costly—or any combination of these benefits.

It must be durable, able to hold up during the kind of use for which it was designed even when operated under the worst possible circumstances.

It must have minimal downtime.

Problem-solvers—A major attribute of specialized equipment is its ability to solve an existing problem.

A persistent problem for golf course superintendents is turf wear and soil compaction caused by regular mowing on greens. A solution: the cutting unit design for a triplex that is offset to the left, allowing the operator to reverse the clean-up cut. By mowing in the opposite direction from the previous cutting pattern on the green, the tires travel across a different area, minimizing turf wear and ground compaction.

Other features you might want:

● Reel mower technology with an electro-hydraulic control switch to easily and quickly raise and lower the cutting units.

● Turf groomers or conditioners that pop up out of the way when they're not needed, and pop back into place when they are.

● Utility vehicles with bench seats to accommodate operator and a passenger.

● Full pressure lube systems with standard oil filters to maintain the oil pressure under various conditions.

● Effective overall operation, including stability, maneuverability, sure-footedness, quality of cut, quiet engine that is liquid-cooled for long life, high horsepower-to-weight ratios, and fuel efficiency.

● Versatility for multiple uses.

For example, attachments for a bunker rake that are designed to tackle specific tasks, such as an aluminum front blade to increase the width for more productivity; a blade attachment for leveling dirt; and a blade that can be set at an angle for windrowing cores after aerating a green.

Serviceability—Serviceability is a major consideration. Equipment users must know the answers to questions like:

✓ How easy is it to service?
✓ Where are the service points located?

✓ What must be removed?
✓ What tools are needed?
✓ What must be done to gain access to the major components?

✓ When problems occur, how much time will it take a technician to diagnose them?

✓ How long will it take to get parts?

Commonality, using the same design features in multiple applications throughout an equipment line, makes diagnosis and repairs easier. It also helps keep parts prices down.

Re-design by committee—Understanding that equipment users are

continued on page 40



It's this type of in-depth examination you should make before purchasing specialized equipment. Here, a greensmower gets a complete once-over during a special program sponsored by John Deere Co.

Why should you buy the most expensive commercial mowers on the market?... To save money!

Working day to day in the turf care industry, you grow to expect a level of quality and performance in your equipment. At Excel, our grass roots philosophy has always been to provide an outstanding value for every equipment dollar you spend.

Unmatched maneuverability

We've been telling you for more than 20 years that dual path hydrostatic steering is the most maneuverable way to steer a mower. Obviously, somebody was listening because today nearly all of our competitors are vying for the lever steer market with their own versions.

Here's why: compare two mowers, a true zero radius turning Excel Hustler and any steering wheel unit with the same horsepower and cutting width. On the straightaways, the two mowers run neck and neck. But start trimming and turning, and the Trim Steering® Hustler mower quickly leaves all others behind. The positive response of dual hydrostatic drive combined with one-of-a-kind Trim Steering eliminates wasteful back-tracking over cut turf. That means you can mow more space in less time and lower your total labor costs!

We've outdone ourselves!

Our famous twin lever steering has been improved! Excel's trademark twin levers have been converted to a comfortable molded hand grip on a single control lever. This new steering system is called Trim Steering® and, unlike steering wheel out-fronts, there is no confusing profusion of pedals and levers required to operate the machine. The T-lever is easily operated with just one hand and controls all forward, reverse, speed, braking and turning motions.



Proven quality & versatility

Our entire family of turf and grounds maintenance products contains the finest industrial grade components assembled with the highest quality workmanship. You can always depend on Excel turf equipment to give you many years of solid, reliable service. If you're *still* comparing Excel mowers to some other brand, be sure to factor in features such as gas and diesel engine models from 21 to 54 horsepower, a 15-bushel, self-dumping catcher, rotary mowing decks from 60 inches to over 12 feet, a 5-foot flail mower, a side-mounted edging attachment, plus several snow removal attachments for year-round versatility.

So take another look at the Excel Trim Steering mower. Nothing else compares.

Excel Turf & Grounds Equipment Never settle for less.

For more information, call now:

1-316-327-4911, ext. 311

Or FAX 1-316-327-2117

Excel Industries, Inc.

P.O. Box 7000

Hesston, Kansas 67062-2097

The Excel logo consists of a stylized blue 'E' shape followed by the word 'EXCEL' in a bold, blue, sans-serif font.

©1993 Excel Industries, Inc.



EQUIPMENT from page 38

the best consultants, companies like John Deere are starting feedback programs. In August, five groups of superintendents from across the U.S. and Canada plus distributors and overseas representatives from the Pacific Rim and Europe met at Pinnacle Golf Club in Milan, Ill. for 1-1/2-day sessions. Equipment in various stages was tested by the end users, who then provided feedback on performance and suggestions for improvements. As a direct result, Deere engineers relocated the ignition switch on the 2243 greensmower and simplified the directional marking for raising and lowering the cutting unit.

These programs prove that it pays for end-users like golf course superintendents to speak up when they have ideas. Open communications help the entire industry develop specialized equipment that truly fits specific needs.

—Steve and Suz Trusty are freelance writers specializing in the green industry. Their office is in Council Bluffs, Ia.

Spin grinding is better, says LM reader

■ To the editor:

I am writing in response to the article "Grinding, sharpening blades" on page 36 of the August issue.

No longer is lapping a normal procedure for sharpening reels, except when spin grinding is not possible. Spin grinding takes about 10 minutes per reel, and when properly adjusted will last about five or six weeks.

Once you lap a spin grind, it defeats the purpose of the grinding, not to mention creating excessive wear on the reel and bedknife. When you grind the reel and bedknife, you put a sharp edge on each one. Why should you have to do anything more?

Also, when purchasing bedknives and reels, I suggest buying original equipment. It will let you go for a longer period of time before having to grind again, and you will receive a far superior quality of cut. The money you save from buying aftermarket parts is just not worth it.

Three important points to consider:

- 1) Get a good understanding of the history and theory of reel mowers.
- 2) There should be no reel-to-bedknife contact on your mowers.
- 3) Think about purchasing a spin grinder and bedknife grinder to do the work yourself. If that is not possible, then have someone (like Lee Heckman at Express Reel Grinding, phone 407-778-2909) do it for you.

For more information on grinders or the history and theory, you can contact me or Heckman, or you can call your local Express Reel dealer and ask about setting up a presentation.

Jay Rogers
TPC at Eagle Trace
Coral Springs, Fla

P R E C I O U S G E M S .

For Results Your Customers Will Treasure,
These Turf Foods Are True Gems.

Harmony and Earthgro bring you the complete line of organic base Bridge® products and all-natural organic turf foods that really perform.



Visit Harmony and Earthgro at Green Industry Expo booths #1709-1711 and Ohio Turfgrass Conference booth #109.

HARMONY
In Tune With Nature®

800-343-6343

Earthgro
The Natural Choice

800-736-7645

Circle No. 105 on Reader Inquiry Card

The Key to Your Long-Term Nitrogen Needs

Top-quality NITROFORM® Slow-Release Nitrogen provides predictable feeding during turf growth cycles when soil microorganisms are most active. That's why a single application of this 38-0-0 nitrogen continues to be released beyond a single season. NITROFORM works equally well when applied on top of soil or in soil mixes used for ornamental trees and shrubs, and it's even compatible with many pesticides. Sold as straight NITROFORM in a powder for spraying and in two different granular sizes



for dry application, this versatile nitrogen is also available in blends from your distributor or blender.

For more information on the key to your long-term nitrogen needs with NITROFORM. Please fill out the coupon below and return it to NOR-AM Chemical Company, 6 Mount Vernon St. Suite 249, Winchester, MA 01890.

 **NOR-AM**
NOR-AM CHEMICAL COMPANY

Specialty Products Division
A Schering Berlin Company

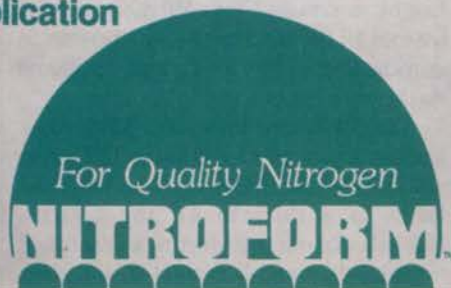
3509 Silverside Road, P.O. Box 7495, Wilmington, DE 19803

Nitroform®

BLUE CHIP®

38-0-0

Slow-Release Nitrogen For Dry Application



Yes! I want more information on NITROFORM for my turf ornamentals

NAME _____

TITLE _____

GOLF COURSE _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

IMPORTANT: Please remember always to read and follow carefully all label directions when applying any chemical.

HOT TOPICS

Goal: 1 million Liberty elms by the year 2000

HARRISVILLE, N.H.—A relatively new type of disease-resistant American elm is replacing those lost to Dutch elm disease on golf courses and landscapes.

Goal set by the Elm Research Institute is 1 million American Liberty elms (*Ulmus americana libertas*) in U.S. landscapes by the year 2000.

The effort has begun in such diverse climates as Unity, Maine; Birmingham, Ala.; Pueblo, Col.; Jackson, Minn.; Deerfield Beach, Fla.; and Cimarron, N.M. The tree is hardy in zones 2 through 9, and is tolerant to pollution and other urban conditions.

The Liberty elm is a thoroughly native American elm, not a hybrid. It's a direct descendent of selected American elm parents that proved their ability to fend off disease when inoculated with DED fungus. Parent trees are still thriving at 35 years of age.

The Liberty elm has the ability to compartmentalize, thereby creating extremely narrow capillaries, so if the DED fungus is introduced, it is prevented from moving through the tree and cutting off nutrient supplies.

The trees are propagated through cuttings rather than seed to preserve the disease-resistant characteristic.

At the same time, the Liberty series offers landscape managers diversity with six different cultivars.

Golf course applications—When American elms reigned, there were 3000 of them at the Country Club of Detroit in Grosse Pointe Farms, Mich.

Now 100 are left, and those are protected with injections of ERI's fungicide.

Carey Mitchelson, the golf course superintendent, obtained 12 American Liberty elms six years ago. When they reached the required size, they were planted on the course, for donations of only \$100 each. The elms are now 25 feet tall and have the classic shape of the American elm.

"When those trees grew to such a height so rapidly," says Mitchelson, "and we sold all the trees to the membership so quickly, that's when we decided we should do this on a larger scale."

The golf course took out a \$300 membership, which entitled it to the 125 young elms. A Boy Scout troop helps care for them in a nursery on the course. Mitchelson's own son Justin, a scout, will organize the transplanting of 25 elms into the community of Grosse Pointe.

"The trees are doing really well," says Mitchelson. "We're very happy with them."

Landscape applications—Before Jim Turner became the owner of North Monroe (La.) Landscape Service, he was the landscape manager at North Monroe Hospital. There, he designed the landscape with 28 tree species, including American



Liberty elms like this one are catching on fast for landscape managers who want to replace American elms killed by Dutch elm disease.

Liberty elms.

In an unusual freeze in 1989, when temperatures were below 10 degrees for 10 days, the Liberty elms came through. Only one has been lost, and that to a bulldozer during construction.

Patricia Crow, landscape designer with Balmori Associates in New Haven, Conn., says elms are "a very important tree in the landscape and have been historically one of the best street trees ever, until the Dutch elm disease struck. They're really unparalleled in terms of their scale and their form and the quality of light they give.

"They have neither too dense a shade or too thin," Crow notes. "It's just a wonderful light shade with a lot of movement in it, because of the way the branches move. They're not stiff; they're flexible. Even the younger ones begin to have that quality of

continued on page 48

INSIDE

1993 turfseed harvest 'fair', page 43

GIE show set for Baltimore, page 43

Water saved with gypsum, page 46

Books, videos and more books, page 47

Final word on turfseed harvest: 'FAIR'

PACIFIC NORTHWEST — This year's seed harvest has been questionable for weeks, thanks to temperamental weather, but we finally have a clear supply picture.

The harvest of 1993 reaped modest yields. Weather conditions see-sawed back and forth, from relentless rain to oppressive heat. During one hot spell, the entire crop was considered to be in jeopardy.

From Post Falls, Ida.: Glenn Jacklin of Jacklin Seed Co. says proprietary bluegrasses averaged 15 percent off the average yield. Commons are 15 to 20 percent below average, with 400 lbs./acre volume vs. 600-650 lbs./acre in a good year.

Although the supply is slightly below adequate, Jacklin says there is seed to sell.

Jacklin is more concerned about next year's crop, in light of what has been poor field burns. "Moisture late in the season has caused field burns to be delayed by at least three weeks," says Jacklin. As of September 3, 90 percent of the proprietary bluegrasses had yet to be burned. Com-

mon bluegrass fields are burning on time.

Fields are burned after every harvest to purify the land for the next sowing.

From the Willamette Valley: Dave Nelson of the Oregon Fine Fescue Commission describes fine fescue yields as "off significantly from previous years, at least 20 percent below average."

Rust disease affected yields slightly, but the weather was the prime culprit, as too much rain delayed pollination. Then, when seed was ready, the stalks laid low to the ground and were hard to gather.

Bluegrass harvests were described by Nelson as "fairly decent" in Central and Northeastern Oregon.

Seed quality and weight per acre are excellent, however, reports Nelson.

Other varieties:

- Bentgrass yields: good and on time.
- Tall fescue: below average, but there's plenty of carryover from 1992.
- Perennial rye: harvest fair to average.

—Terry McIver

Products, programs fill up Expo show

BALTIMORE—The 1993 Green Industry Expo, scheduled for Nov. 14-18 in Baltimore, Md., features a slate of informative seminars for green industry professionals who want to grow their business.

Exhibit space is sold out, which means attendees will also have plenty of equipment and other products to try and buy.

The annual exposition is co-sponsored by the Professional Lawn Care Association (PLCAA), Professional Grounds Management Society (PGMS) and the Associated Landscape Contractors of America (ALCA).

Highlights of the PLCAA program include:

- improving employee performance by linking job accomplishments with wages
- proper pricing strategies, with Charles Van der Kooij;
- managing cash flow
- profiting from lawn renovations.

The PGMS program includes more than a dozen seminars on aeration, tree care, composting, integrated pest manage-

continued on page 48

WINTER GREEN.

Get ready for wintertime profits.

After your fall landscaping jobs are finished, equip your truck with a Hiniker Cub Spreader. It's compact, self-contained and ideal for all kinds of sand and salt spreading jobs.

On parking lots, driveways, streets...a Hiniker Cub Spreader brings you profitable new business with every snowfall. Available with 8 hp engine or hydraulic drive for full-size pick-ups and small flatbed or dump trucks.



Full-size hopper-type spreaders are available in stainless steel or mild steel versions.



Economical Hiniker tailgate mounted spreaders fit all standard width dump bodies.

HINIKER

WRITE OR CALL FOR MORE INFORMATION
HINIKER COMPANY • AIRPORT ROAD • P.O. BOX 3407 • MANKATO, MN 56002-3407 • PHONE (507) 625-6621
Circle No. 106 on Reader Inquiry Card

"IT'S VERY SIM A GAS ENGINE

If a diesel pump stands between you and a low cab forward, we've eliminated the obstacle. This is the power you want, with the convenience and familiarity you couldn't get – until now.

INTRODUCING THE NEW GMC FORWARD W4 GAS.

Let's talk power. The W4 Gas is equipped with the GM 5.7L V8. It's the most powerful engine you can get in a Class 3 low cab forward (LCF) – 300 lb-ft of torque, for starters. And 190 horsepower, 40 more than the most powerful diesel available in a Class 3 LCF. It also runs on regular unleaded gasoline. Efficient electronic fuel injection and the standard 38-gallon gas tank give the W4 Gas plenty of range between trips to the pump.

There's a lot more to like, too. Turn-on-a-dime maneuverability.

The driver's forward position, the panoramic visibility, power steering, the tilt/telescopic steering wheel and the adjustable driver's seat all chip in to make the machine easier to maneuver. Which is important in the tight spots on urban and commercial routes.

Forward has a tight turning radius. You'll appreciate that when you have to deliver in a tight spot.



Quite simply, it's the most powerful standard engine – and the only gas engine you'll find – in its class.

MORE BODY VOLUME.

The shorter cab lets you go with bodies up to 18 feet, longer than conventional cab trucks and cutaway vans with the same overall length. So you can move more in every load.

Easy access. You can get at the engine and other inner workings in an instant, because the cab tilts forward 45°. And without even tilting the cab, the driver can check fluids.

Speaking of the driver, the W4 Gas also makes things easier there, too. The cab is easy to get into, spacious and comfortable once you're in. (It'll even seat three if necessary.) It's easy to drive, even for inexperienced drivers.

WORK GETS DONE. MONEY GETS MADE.

The GMC Forward W4 Gas makes your choice very simple. Its combination of LCF convenience and productive intelligence with a gas-powered strength gets the work done quickly, efficiently. No nonsense. No hassles. With a dealer network that's the same way. For more information or a dealer's name and number, call 1-800-462-8782.

OFFICIAL SPONSOR
WorldCupUSA94



GM, GMC, GMC Truck and Forward are registered trademarks of General Motors Corporation. © 1993 GM Corp. All Rights Reserved. Buckle up, America!

GMC
TRUCK

FORWARD

THE STRENGTH OF EXPERIENCE

PLE. I'LL TAKE EVERY TIME!



Circle No. 103 on Reader Inquiry Card

Water saved with gypsum

COLLEGE STATION, Texas—

Substantial savings in maintenance costs and water use are being chalked up to gypsum blocks used to measure moisture content.

The Texas Agricultural Extension Service here is teaming up with school districts and farmers to investigate these gypsum blocks, which have the potential to save considerable money and water.

"You plant these in the soil where the roots are. When the soil dries up, the gypsum dries up," explains Joe Hengler, associate professor and extension agricultural engineer/irrigation at Texas A&M University.

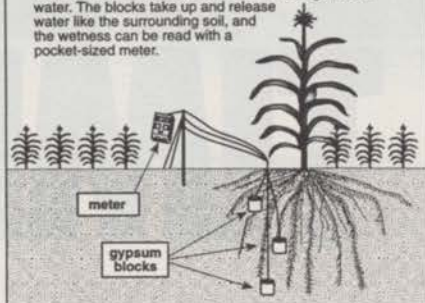
Made of an ingredient in plaster-of-paris, the blocks are buried in the soil at different depths. They take up and release water just like the soil. Their wetness can be read from a pocket-sized meter.

The blocks make it possible to determine how much moisture is available to plants, to spot and correct uneven water distribution, and to help schedule effective but efficient irrigation.

At Crane High School where less than 15 inches of rain falls each year, the football field was watered for an hour every day from March through September. School officials then worked

Gypsum blocks conserve water

The Texas Agricultural Extension Service is teaming up with farmers and school districts across the state to install gypsum blocks. These water-saving tools have the potential to save thousands of dollars and millions of gallons of water. The blocks take up and release water like the surrounding soil, and the wetness can be read with a pocket-sized meter.



Source: Guy Figgs, Texas Agricultural Extension Service
Graphic: Agricultural Communications, The Texas A&M System

with the extension service to bury the gypsum blocks at 6, 12 and 18 inches.

Moisture readings from the gypsum blocks indicated that the football field needed to be watered only for an hour, just three times per week. The new watering policy saved more than 170,000 gallons of water and nearly \$2,000 during the hottest six weeks of the year.

"Their watering practices changed drastically," says Greg Gruben, Crane County's extension agent. "The field looks just as good, and any time you can save the school system money, you're doing a good deed."

Hengler reports that five or six companies manufacture the gypsum blocks and moisture meters. "Some devices are tied to your (irrigation system) timer. Football fields are good targets, but I'm sure it would be a benefit to parks and golf courses."

—Jim Guyette

ACTUAL WATER USE AND COST DATA CRANE (TEXAS) HIGH SCHOOL

| Month | 1989 | | 1990 | |
|--------------|----------------|-------------------|----------------|-------------------|
| | Gallons | Cost | Gallons | Cost |
| July | 193,332 | \$2,938.65 | 125,835 | \$1,912.69 |
| August | 96,309 | \$1,362.39 | 25,945 | \$394.36 |
| Sept. | 115,112 | \$1,749.70 | 82,670 | \$1,256.58 |
| TOTAL | 404,753 | \$6,050.74 | 234,450 | \$3,563.63 |

Source: Greg Gruben

The illustration shows a hand in a dark sleeve pulling a lever on a mechanical device. The device is mounted on a large, spoked wheel. Several bullets are shown in motion, some entering the device and others being ejected. A large, flame-like shape is emerging from the right side of the device. The background is a gradient of yellow and orange.

The Shaw's Team

DURSBAN

If your present supplier isn't p
foolproof pest and weed cont
on the SHAW'S TEAM! Th
loaded and ready to BLAST
and insect problems away!

KNOX FERTILIZER COMPANY, INC.
P.O. Box 248, Knox, IN 46534 / (219)772-6275 / Fax: (219) 772-

Circle No. 274 on Reader Inquiry Card

INFO CENTER

Useful literature and videos
for LM readers

ATHLETIC TURF VIDEO..."Floyd Perry's ABCs of Grounds Maintenance" is a training video for baseball and softball groundskeepers. The two-tape series contains tips and techniques for athletic field care. The 85-minute video includes detailed explanations, multi-camera angles and computer graphics. It is co-sponsored by Toro. To order, contact GM Video, P.O. Box 617018, Orlando, FL 32861; (800) 886-2006.

HORTICULTURE CAREERS...The American Society for Horticultural Science has a new video, "Careers in Horticulture." The 15-minute video costs \$39.95 including shipping and handling. Preview copies are not available for single copy orders.

To order, contact the American Society for Horticultural Science, 113 S. West St., Suite, 400, Alexandria, VA 22314-2824.

MasterCard and VISA orders can be placed by fax to (703) 836-2024.

ORGANIC WHOLESALERS...The National Directory of Organic Wholesalers contains names of more than 690 organic food wholesalers, farm suppliers and distributors across North America, and key buyers internationally.

To order, send \$34.95 plus \$4 first class shipping and handling to CAFF, P.O. Box 464, Davis, CA 95617. To order by phone, call (916) 756-8518.

LANDSCAPING'S VALUE...The Associated Landscape Contractors of America (ALCA) has published a *Commercial Value Brochure* to promote the value of professional landscaping in commercial settings.

ALCA believes this brochure can be a helpful marketing aid to help contractors create awareness of their services.

To order, contact: ALCA, 12200 Sunrise Valley Dr., Suite 150, Reston, VA 22091; (703) 620-6363; fax: (703) 620-6365.

FINDING FOLIAGE...The Florida Nurserymen & Growers Association (FNGA) has published the 18th edition of its *Foliage*

Locator, which features plant availability, allied products, transportation directory, membership directory and Florida regional maps.

To order for May delivery, contact: FNGA, 5401 Kirkman Rd., Ste. 650, Orlando, FL 32819; (407) 345-8137.

GUIDE TO DIAGNOSING...A guidebook from Rhone-Poulenc Ag Company offers a reference guide to help diagnose pest problems.

Lawnscapes and Ornamentals: Problems and Solutions, is a quick reference guide to many of the common insects, diseases and weeds that daily confront landscapers and nurserymen. The 43-page booklet describes a variety of pests, their lifecycles, the damage they cause and the cultural and chemical options available to control them.

Green industry professionals can obtain a copy by contacting their local Chipco distributor or Chipco sales representative. Each recipient will be asked to complete a one-page customer profile which analyzes their specific pest problems.

has 'em under FIRE!

TEAM*

GALLERY*

ding you with a
formula, call
e fully
r weed



*Registered Trademark of DowElanco.

LIBERTY ELM from page 42
movement that the older trees have.”

Her company has specified American Liberty elms for two recent projects. “We’re very much interested in trying to re-introduce them into the landscape in certain situations,” Crow says. “Certainly for historical projects, locations in public areas, on campuses. There are so many uses for them.”

For more information on American Liberty elms, call 1-800-FOR-ELMS (367-3567) or write: Elm Research Institute, Elm Street, Harrisville, NH 03450.

GIE EXPO from page 43

ment and ways smaller landscape contractors can successfully compete with larger companies in the '90s.

ALCA's presentations feature customer service, cost management, marketing, and how to successfully begin a design/build business.

Keynote speakers for Expo '93 are Ty Boyd, well-known motivational speaker and author, and John and Greg Rice, co-founders of Think Big, Inc. Boyd will focus

on how to face the challenges of the '90s without compromising personal ethics. The Rice brothers will cover creative problem solving.

The PLCAA benefit auction again features a variety of products from green industry suppliers.

ALCA's "Breakfast of Champions" sessions will be held each morning of the exposition. Discussion topics include selling maintenance services; client relations; and ways to get a new business off the ground.

ALCA also features an all day, pre-conference seminar by Bob Whiting: "Hiring and Firing—Building a Strong Team."

The popular annual outdoor equipment demonstration rounds out the show on the morning of Nov. 18.

It's still not too late to register. For more information on air fares, lodging and full show schedules, call one of the following numbers:

PLCAA: (404) 977-5222;

ALCA: (703) 620-6363;

PGMS: (410) 584-9754.

GREEN INDUSTRY EVENTS

NOVEMBER

9-12: New York Turfgrass Turf & Grounds Expo, Rochester (N.Y.) Riverside Convention Center. Contact: NYSTA, (800) 873-8873.

11-13: Landscape Maintenance Association's Equipment Show & Conference, Delta Orlando Resort. Contacts: exhibit space: Betsy Laird, (813) 731-6024; tickets: (813) 965-8604.

14-18: Green Industry Exposition, Baltimore, Md. Contacts: ALCA members call (703) 620-6363; PLCAA members call (800) 458-3466; PGMS members call (410) 667-1833.

16-17: Urban Tree Care Seminar, Howard Johnson Motel, Lafayette, Ind. Contacts: Sueann Smith, (317) 494-7225 or Harvey Holt, (317) 494-3585.

18-19: Midwest Reconstruction & Cleanup Conference, Washington, D.C. Contact: King Communications Group, (202) 638-4260.

18-20: National Arborist Association's TCI Expo '93, Cleveland Convention Center. Contact: (800) 733-2622.

19: National Water Features Association Trade Show, Orlando (Fla.) Twin Towers. Contact: NWFA, (407) 849-4312.

29-Dec. 1: North Central Turfgrass Expo, Pheasant Run Resort & Expo Center, St. Charles, Ill. Contact: NCTE, (312) 616-0800.

30-Dec. 2: Southern Turfgrass Association Conference and Show, New Orleans, La. Contact: (901) 377-7194.

DECEMBER

1-3: New Jersey Turfgrass Expo, Garden State Convention & Exhibit Center. Contact: (908) 932-9271.

1-3: Rocky Mountain Turf Conference & Trade Show, Currigan Hall, Denver, Colo. Contact: (303) 688-3440.

1-3: Golf Course Europe, Palais des Congres, Paris, France. Contact: Boris Franckomme, (510) 526-6922.

3: "Dealing with the Competition of the '90s," presented by the Associated Landscape Contractors of America and the Texas Association of Landscape Contractors. Contact: ALCA, (800) 395-2522.

6-9: Ohio Turf Foundation Conference & Show, Columbus (Ohio) Convention Center. Contact: OTF, (614) 292-2601.

7-9: New Jersey Expo '93: Trump Taj Mahal Casino Resort, Atlantic City, N.J. Contact: N.J. Turfgrass Ass'n., (908) 821-7134.

7-9: Georgia Turfgrass Conference & Show, Georgia International Convention Center, Atlanta, Ga. Contact: Georgia Turfgrass Association, (404) 975-4124.

8-9: Environmental Care Ass'n. of Idaho Convention & Trade Show, Weston Plaza, Twin Falls, Ida. Contact: Ben Miller, (208) 342-8899.

14: Rutgers Univ. Roadside and Vegetation Management Seminar, New Brunswick, N.J. Contact: Cook College, (908) 932-9271.

15: LCAP Winter Educational Meeting, Embers Inn, Carlisle, Penn. Contact: LCAP headquarters, (717) 236-2050.

With Formulating Plants located in Florida and Wisconsin **KOOS • SHORE** can fill all your needs:

1 Fertilizer Blends featuring Nutralene, sulfate of potash and minor elements.

2 Fertilizer Blends formulated with pesticides from an extended list of turf labels.

Plus...

3 Mini Size homogeneous fertilizer products for the golf course.

When your grass is on the line call:

KOOS  **SHORE**

Midwest
1-800-558-5667

Southeast
1-800-329-2203

Circle No. 112 on Reader Inquiry Card

JOB TALK

Miami Metrozoo on the road to recovery

■ One year after Hurricane Andrew hit Miami Metrozoo, the park is almost back to full operation, but Jorge Maura and his landscape crew members still face years of work to repair extensive damage.

Thousands of trees were torn from the ground, taking buildings, irrigation pipes, bedding plants, sod and asphalt walkways with them. Trees fell across moats, leaving bridges for animals that dared to venture out. The perimeter fence came down. Dangerous wild dogs entered the park. Maintenance vehicles were tossed about as if toys; seven vehicles were destroyed.

"Even before the storm hit, I sometimes thought if I could do this over, I would do it differently, a little better," Maura remembers. "That's what we're trying to do now. We're trying to put in the right kind of shade trees, plant low-maintenance hedges and add some color."

Facing the challenge—Maura didn't have fun during the first days after the storm. There was no electricity or water when he arrived at work. Andrew had left thousands of cubic yards of assorted rubble, including 700 dead pine trees, and a storm following the hurricane toppled another 60 trees.

"Our priorities got thrown around, but everything didn't stop growing," he comments. "The grass, hedges and bushes all kicked in right away."

As a result of lost shade from the fallen trees, and crew members being called away to other projects, "weeds took off," Maura recalls. "We were able to control them with Roundup herbicide and hand power. Right now, I would say that the entire zoo is



Hurricane Andrew destroyed the zoo's Lakeside Restaurant.

back under control, although weed control is an ongoing challenge."

Eighty volunteer members of Monsanto's Spontaneous Weed Attack Team (SWAT) helped clean up the weeds (see August 1993 issue of LM). Those volunteers saved Maura a week's work.

Replace trees, repair irrigation—More than 7,000 trees of many varieties are being replanted.

Varieties include mahogany, oaks and palms—the last of which survived the storm incredibly well and were also easy to straighten up. Maura is avoiding black olives.

"It drops leaves once a year and drops sap during summer, staining the walkways," he laments. Black olive trees are a potential hazard to zoo patrons and certain expense for Maura, because the root system cracks the asphalt walkways.

Maura is crafting the "new" zoo with flowers and color. For instance, instead of using a cherry hedge, he's adding ixora and 'Nora Grant.'

"We're changing the look of the zoo and reducing labor-intensive areas," he says. "For example, we selected hedges that droop down like a firecracker when it reaches its 3 1/2-foot height; not something we'd have to trim."

He's also adding varieties like yellow and pink trumpet trees and Hong Kong orchids, along with oaks.

Before the 500,000 square feet of grass that was lost is replaced, Maura must first repair irrigation systems damaged by uprooted trees. Following the storm, uprooted irrigation pipe was simply left above ground if it wasn't cracked. Sprinkler heads were repaired or replaced to the point where water could still be delivered to the trees.

"We still have to repair all that tubing and put it back in the ground," Maura sighs. "We kind of forgot about aesthetics to keep the trees alive. Now we're repairing damaged pipes, and installing irrigation where we didn't have it before."

"The zoo is back to 80 percent function," Maura says, "but our department's work has changed substantially. Usually, everyone is tied up doing routine duties. Since the storm, crew members have done an excellent job of handling the extra repairs and improvements."



Zoo crews are replanting thousands of trees. Palms weathered the storm well, and were easy to replant.

PRODUCT SHOWCASE

New wood/plastic building composite for decks, play

A new building material, composed of wood and plastic, is now reportedly in use for a variety of landscape and playground structures.

Trex is made of 50 percent waste wood obtained primarily from furniture sawdust and wooden pallets and 50 percent reclaimed polyethylene obtained from grocery bag recycling programs and shrink wrap.

Mobil Chemical Company, maker of Trex, says the new material is not treated with any preservatives. It stays smooth, does not splinter, and provides excellent traction, in wet or dry weather. High insect and moisture resistance prevents rotting.

Trex has been used in rebuilding pro-

jects at the Jersey shore, and is being considered for use along shoreline properties.

A group of townspeople in Hooksett, N.H., recently built a maintenance-free playground out of the material.

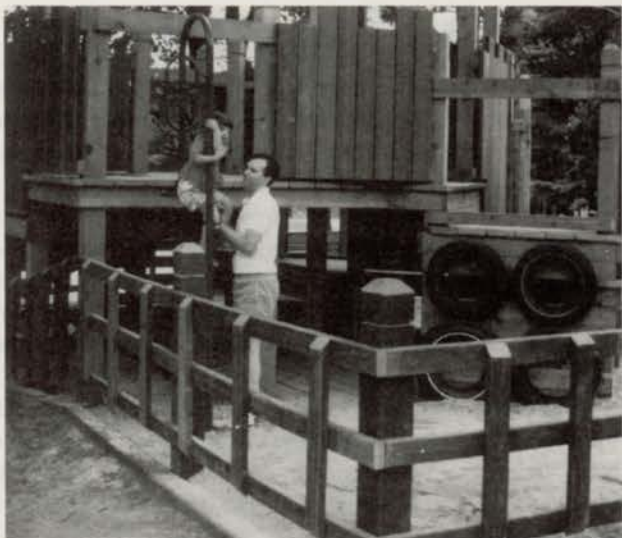
Trex comes in two colors, natural and dark brown. After exposure to air over a few months time, the natural brown turns a silvery gray color.

Trex can be worked like wood: you can saw

it, nail it, drill it, rout it or lathe it.

Mike Brunner, a contractor in Speonk, Long Island, says Trex does not split, even when nailed near its edge.

Circle No. 191 on Reader Inquiry Card



Control fire ants with new sub-surface injection tool

A new fire ant control tool reportedly provides 100 percent kill of any size fire ant colony when used correctly.



The injector product by Intertech Unlimited, Las Vegas, Nev., is used in indi-

vidual mound treatments, but does not require follow-ups to treat mounds built by surviving insects.

The Intertech System kills the colony in less than 30 seconds.

The technology acquired by Intertech is a sub-surface thermal injection system, patented and EPA labeled.

The active ingredient is resmethrin, a pyrethroid. According to Intertech Unlimited, resmethrin is a wax, with zero solubility in water, and thus will not enter into any aquifer or body of water.

A one percent solution is heated to a temperature which produces molecules in the 0.5 micron range. The heating process produces an extremely active vapor that provides for an almost instant and total infusion of even the largest fire ant colony.

For more information, contact Intertech Unlimited at (702) 873-5848.

Circle No. 192 on Reader Inquiry Card.

Software program manages payroll, many other jobs

Armor Premier Accounting Software manages all the payroll needs for landscape companies.

The software's payroll module handles the simplest to the most complex payroll



applications.

In smaller companies, the General Ledger's payroll feature lets managers track labor costs and prepare forms W-2 and 1099.

The company says the Premier program computes pay per client or landscapers' flat rate by job, as well as hourly over time and commissions.

Armor Premier handles direct deposits of checks. It calculates and tracks costs for workman's comp and other benefits; provides a place to file employee review information, reports, options and forms for analysis and tracking needs.

Circle No. 193 on Reader Inquiry Card

SHOWCASE

PRODUCT REVIEW

Measure snow build-up, 'good-bye' to false alarms

"Snow Alert" monitors the accumulation of snow on the ground and sends a signal to an indoor receiver.

"We normally agree not to plow customers' driveways or parking lots unless there is at least three inches of snow on the ground," says Bill Eklund, president of Aspen Enterprises, Falmouth, Maine.

"Many times, predicted accumulations do not become reality. With this device, we can get our sleep and still serve our customers' needs," says Eklund.

"Snow Alert will help snow plowers who get predictions of flurries that turn out to be major accumulation satisfy their customers who want to be plowed out by 7 a.m.," Eklund says.

The wireless "Snow Alert," installs on a deck or driveway, and runs on batteries. The instrument monitors accumulation until it reaches a preset amount and then

transmits a signal to the designated destination inside the house on an FCC-approved frequency. Wet snow, freezing rain or blowing or drifting snow does not affect its accuracy.

The "Snow Alert" sells for \$249.
Circle No. 194 on Reader Inquiry Card

Adjustable spray jet throws water up to 13 ft., no clogs

Antelco Corporation of Longwood, Fla., has begun to market Spectrum 360, an adjustable turbulent flow spray jet with built-in vortex action.

Finger-tip control allows a flow rate of 0 to 23 gph. The Spectrum 360 throws water up to 13 ft. in diameter.

Special features reduce the possibility of system failure through clogging. The even, full circle spray pattern is produced with fine droplets at high velocity for efficient watering while maximizing irrigation reliability.

The fully adjustable flow and spray length provides the basic needs for water conservation and balanced performance to minimize waste.

Circle No. 195 on Reader Inquiry Card

Wood treatment has 'built-in' repellent

ACQ "Preserve" is arsenic and chromium free. For some wood species, ACQ comes with a "built-in" water repellent to resist checking and cracking. ACQ Preserve weathers naturally to a warm brown color. The product can be painted or stained to match existing outdoor color schemes.

The preservative in ACQ is registered by the EPA and is accepted by the American Wood Preservers' Association and major building codes.

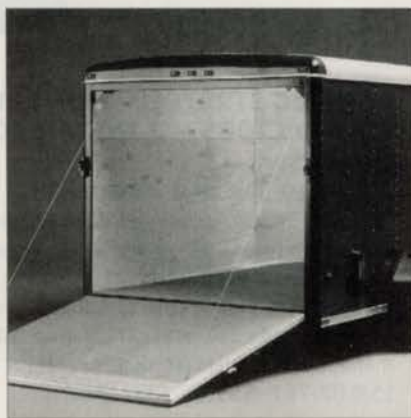
It is backed by a Limited Lifetime Warranty when used in residential construction.

Trailer easily hefts landscaping equipment

The new Wells Cargo Wide Axle Landscape Trailer has a 102-inch track width for extra on-road stability.

The trailer also features a spacious 9-foot, 9-inch-wide interior floor with no wheel boxes to get in the way.

Circle No. 197 on Reader Inquiry Card



Workbench designed for use by green industry experts, lifts to 300 lbs. of cargo

The Uni-Lift Model 384 Lift/Workbench is a fast and safe way for one person to service all kinds of turf grooming equipment.

One person can service a 30-inch ground-driven reel mower, adjust bedknife clearance and perform backlapping on a greens mower.

The Uni-Lift has a 300 lb. capacity.

An additional support hanger lets you suspend 30-inch reel mowers by the axles. Simply raise the mower, secure it to the support hanger with the adjustable locking clamp, and lower the lifting platform for total access. The basic unit costs \$1295. Accessories are extra.

Circle No. 198 on Reader Inquiry Card

WELLS CARGO



A NEW "MACHINE"...



Model CW162

...JUST FOR LAWN & LANDSCAPE MACHINES

Transport and store all your equipment with complete security. Protected from the weather. Great Options like: FLOW-THRU VENTILATION eliminates fuel fumes. WOLMANIZED 1 1/2" floors and 3/4" interior side walls for "guts". WIDE BODY, too. Hundreds of Models, Sizes and other Customizing Options. All backed by an EXCLUSIVE 3 YR. WARRANTY PROGRAM. Give us a call, today.

Tell Us You Saw It In LANDSCAPE MANAGEMENT

1-800-348-7553 for Catalogs-Prices
Factory Service points: GA, IN, TX, UT.
Nationwide Dealer Network.

P.O. Box 728-1069, Elkhart, IN 46515-0728

With a Wells Cargo Behind... You Never Look Back!

Circle No. 153 on Reader Inquiry Card

LANDSCAPE MANAGEMENT

INCORPORATING LAWN CARE INDUSTRY

RESOURCES FOR PROFESSIONALS

LANDSCAPING

Construction, Problems, Maintenance;
Pest Control; Business Advice
New & Best-Selling Books and Videos

Landscape Construction, Problems, Maintenance

LANDSCAPE PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

A new release! This is a compilation of Dr. Rao's popular "Problem Management" column from Landscape Management Magazine. Answers readers' questions and solves problems about weeds, insects, disease, plant selection, and a range of landscape issues...all new, revised, updated and presented in a categorized format. 153pp. BK-102-\$39.95

LANDSCAPE PLANTS IN DESIGN

by Edward C. Martin

This must-have book is an annotated black-and-white photographic guide to the design qualities of ornamental plants and their aesthetic and functional use in landscape designing. More than 600 trees, shrubs, vines, ground covers and turfgrasses are described in non-technical language, spotlighted in 1,900 photographs. Select the best plant materials for use in landscape design. Quick references to specific design qualities and growing conditions. 496pp. BK-365-\$75.95

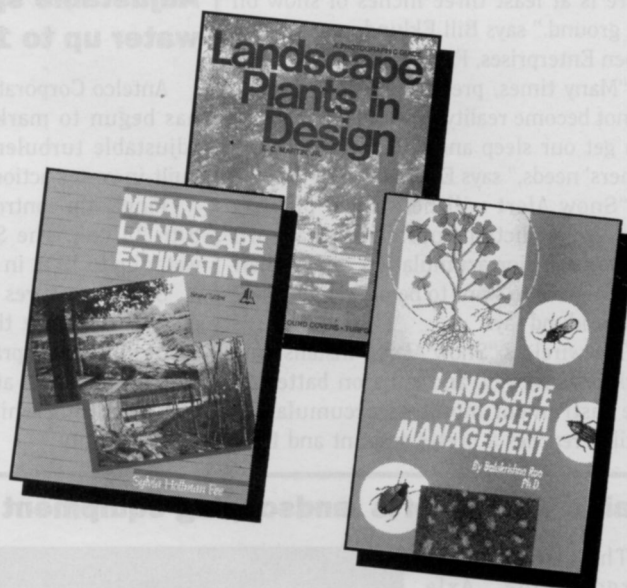
MEANS LANDSCAPE ESTIMATING

by Sylvia H. Fee

2nd. ed. Written by a highly respected landscape designer and contractor, this updated book is an organized working tool that "talks you through" every step of preparing effective bids and estimates. Guidance for planning jobs and marketing your company. 275pp. BK-346-\$64.95

MEANS SITE WORK AND LANDSCAPE COST DATA 1993

12th annual ed. Plan, budget and estimate site work construction. Data is up-to-date for estimating infrastructure improvements, environment-oriented construction, hazardous waste and ADA-mandated handicapped access. New items include additional piping and drainage, street openings, pavement repairs, handicapped ramps, railings, and hardware. Check cost items using the handy page tabs and comprehensive index. Current guidelines and background references for solving estimating problems. fifty-seven tables of assemblies costs with 3,000 supporting line items to make conceptual estimates (with 10% accuracy). 550pp. BK-347-\$79.95



WINNING STRATEGIES FOR LAWN & LANDSCAPE CONTRACTORS — A SYSTEM FOR SUCCESS

by Brent Demos

Here are the most powerful ideas you need to succeed! Discover proven techniques that will help you meet and beat the competition: win more bids, increase jobs from current clients, hire productive employees, and learn successful management skills. This comprehensive manual also includes effective tips for marketing and advertising, equipment management, diversification, education and training. LSM-BK-761-\$59.95 / tax deductible)

LANDSCAPE RESTORATION HANDBOOK

by Harker/Evans

This handbook has all you need to know to develop a natural landscaping or ecological restoration program and a broad-based program for education, regional planning and increased biological diversity. Provides scientific and common plant names, environmental tolerances, aesthetic codes, wildlife value, color, bloom time and landscape use. Lists nursery sources for native plants and seeds. Organized by region so that urban planners, landscape and golf course architects and superintendents, horticulturists, and consultants can find information fast. Includes a 22"x36" full-color ecoregion map. LSM-BK-762-\$75.00

LANDSCAPE MANAGEMENT

INCORPORATING LAWN CARE INDUSTRY

Videos

Train one...or many...new employees and update current staff inexpensively and effectively. Select the videos you need and use them again and again. Available in English (E) or Spanish (S).

LANDSCAPE EQUIPMENT MAINTENANCE SERIES (VHS Video)

This five-title series gives you more than an hour of detailed instruction on one tape. Or, choose just the titles that apply to your business:

Power Blower presents proper procedures on maintenance, safety and operation for optimum performance of the most valuable piece of landscaping equipment, the power blower. 10 min. VS-102E or S

Rotary Edger/Trimmer teaches how to keep this valuable tool in top shape with proper maintenance, safety and operation for crisp and neat lawn edges. 13 min. VD-103E or S

21-Inch Rotary Mower shows maintenance, storage, operation and safety to get the best performance and a well-groomed job from your mower. 14 min. VD-104E or S

Power Shears require proper maintenance to ensure safe, efficient operation. Covers what you need to know about gasoline models. 12 min. VD-105E or S

String Trimmers can reduce the time for difficult mowing and trimming. Get the best results from proper maintenance, safety and operation. 13 min. VD-106E or S

Each Title: \$49.95. Complete Series: VD-EMS - \$199.00

LANDSCAPE TOOLS USE AND SAFETY (VHS Video)

Choose the right tool for the job and know how that translates into safety for the landscape worker. Illustrates the relationship of construction materials to the quality of landscape tool. Safety precautions, proper clothing and back care are thoroughly discussed. See commonly used tools in action, such as scoop, round and square point shovels, rakes, forks, cultivators, hoe, picks, mattocks. 25 min. VD-107E or S - \$95.00

LANDSCAPE IRRIGATION MAINTENANCE AND TROUBLESHOOTING (VHS Video)

Starting with an overview of the operation and maintenance of irrigation systems, this video details sprinkler heads and drip emitters, pipes and fittings, field control wires and hydraulic tubing, valves, backflow prevention devices, mainlines and points of connection, and controllers. Troubleshooting: flow charts and step-by-step methods. 26 min. VD-108E - \$95.00

IPM (HORTICULTURE) (VHS Video)

Beautifully filmed, excellent introduction to Integrated Pest Management (IPM) includes interviews with experts who help you learn to integrate biological, cultural, chemical strategies into an effective pest control program. 25 min. VD-109E - \$95.00

PESTICIDE SAFETY IN THE LANDSCAPE

Here is the proper way to reduce the hazards of pesticides. Topics include pest identification, toxicity, labels, pesticide formulation, application equipment, mixing and application techniques, disposal and storage. 27 min. PES-VD-601 E or S - \$95.00

HERBICIDE USE AND SAFETY IN THE LANDSCAPE

This new two-video set shows all you need to know about herbicides and their applications. The first tape covers terms and concepts required for safe and appropriate decisions about landscape herbicides. In part two, you'll learn about different types of application equipment and specific landscape circumstances where herbicides can provide effective weed control. 51 min. total. PES-VD-600 (E) or (S) - \$145.00

SAVE \$25.00 when you order the complete 3-video series! A \$240.00 value. You pay only \$215.00!!

| Title & Number | Qty. | Price | \$ Total |
|----------------|------|-------|----------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Sub Total - \$ _____

Deduct 10% when you order 4 or more books - \$ _____

Tax: CA, CO, CT, GA, IL, MN, NJ, NY, OH, TX - \$ _____

Postage/Handling - \$ _____

Total Amount Enclosed - \$ _____

Postage, Handling, and Tax must be included with payment.
Shipping & Handling Domestic: Please add \$5 per order + \$1 per additional book. All others add \$15 per order + \$2 per additional copy.
Please allow 3-4 weeks for delivery. Prices subject to change. Quantity rates available upon request. For information or to order call 1-800-598-6008 or FAX 216-891-2726.

948426

Account # _____ Exp Date _____

Signature _____ Date _____

Name _____ Title _____

Company _____

Address _____

(Please use street address)

City _____ State _____ Zip _____

Telephone () _____

Check Enclosed or Charge my: MasterCard VISA

American Express (\$10 minimum charge card order.)

Detach and mail this form with your payment or credit card information to:

ADVANSTAR GUARANTEE

If you are not completely satisfied with the material you order, return it to us within 30 days for a full refund. No questions asked.



ADVANSTAR
COMMUNICATIONS
MARKETING SERVICES

7500 Old Oak Blvd., Cleveland, OH 44130

PRODUCT REVIEW

Nursery stock easy to track with electronic inventory

ScriptWriter II is an automated, portable data collection device that uses pen-based technology pioneered by Data Entry Systems of San Mateo, Calif.

The Warren County Nursery, in McMinnville, Tenn., has used the system to eliminate eight-inch thick inventory books.

ScriptWriter has the capability to upload data to computers almost immediately after counting trees.

"The nursery had been running into problems because they don't sell in small quantities," says Shyrunn Beasley, president of Condor Computing. Condor used ScriptWriter II to develop software for the electronic inventory system.

"They're usually selling quantities of 50 to 100 at a time, and even truckloads of trees during the spring," says Beasley, to illustrate the magnitude of

Warren's bookkeeping.

ScriptWriter II lets operators input data collection effectively, so that inventory reflects a more accurate picture of what's been sold and what's in stock.

Circle No. 199 on Reader Inquiry Card

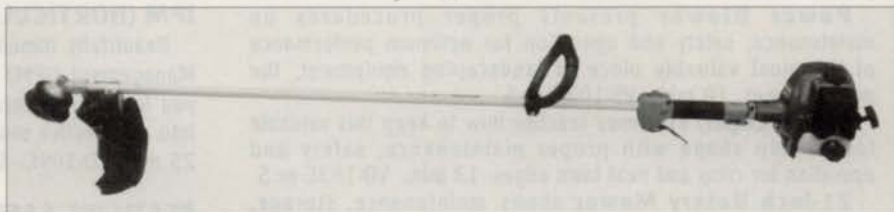
New model trimmers lighter, easier to use

Makita's line of commercial duty gas engine trimmers can handle any trimming

straight shaft design as their commercial-duty counterparts.

The economical RST250 is highlighted by 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.

The trimmers have patented automatic string feed which advances string to the desired length by quickly decreasing, then boosting engine speed.



task required by the groundskeeper or landscaper with power and reliability, says the California-based company.

Models RBC221 and RBC251 feature the same durable and efficient aluminum

According to Makita, all three models have a vibration-absorbing design to reduce operator fatigue over extended periods of use.

Circle No. 200 on Reader Inquiry Card

THE PERFECT GROWING MEDIUM



COLUMBUS, OHIO • DECEMBER 6-9, 1993

OHIO TURFGRASS CONFERENCE & SHOW
DECEMBER 6-9 • COLUMBUS, OHIO

LET'S GROW! Rush me more information on:

- Exhibiting at the OTF Show Attending (pre-registration)
 The benefits of Membership in the Ohio Turfgrass Foundation

Name _____

Company _____

Street Address _____

City, State, Zip _____

Phone _____

Detach and mail to: The Ohio Turfgrass Foundation, 2021 Coffey Rd, Columbus, OH 43210 • Phone: 614-292-2601 • FAX: 614-292-1626

MIDWEST GREENSCAPE EXPO

JANUARY 4 - 7, 1994

INDIANA CONVENTION CENTER
INDIANAPOLIS, IN

SPONSORED BY

INDIANA ASSOCIATION OF NURSERYMEN
AND
MIDWEST REGIONAL TURF FOUNDATION

- EDUCATIONAL SESSIONS ON GOLF COURSE, SPORTS TURF, GENERAL GROUNDS, LAWN CARE, AND LANDSCAPE MANAGEMENT
- EXPANDED TRADE SHOW WITH OVER 300 EXHIBITORS AND EQUIPMENT ON DISPLAY

JOIN THE OVER 2500 GREEN INDUSTRY PROFESSIONALS EXPECTED TO ATTEND!

CONTACT JO HORN AT (317) 494-8039 FOR INFORMATION AND REGISTRATION

MARKET SHOWCASE

Rates: \$105 per column inch for 1x insertion; \$100 for 3x insertion; \$95 for 6x insertion; \$90 for 9x insertion; \$85 for 12x insertion (one inch minimum). Frequency based on calendar year. For ads using a Reader Inquiry Number, add \$30 to the total cost of the ad per issue. For ads using a second color standard red, blue, green or yellow only, add \$65 to the total cost of the ad per issue.

Send ad copy with payment to: Brian Kanaba, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, Ohio 44130, or call (800) 225-4569 ext. 155 outside Ohio; (216) 891-2665 inside Ohio; FAX (216) 826-2865.

EQUIPMENT FOR SALE

HYPRO • KURIYAMA • FLOJET • FMC • SOLO • TUFLEX • HOSE • GUNS • REELS



WESTHEFFER COMPANY, INC.

P.O. Box 363 • Lawrence, Kansas 66044 • (913) 843-1633

Come see us at the
GIE Expo - Island #605!

To Order Call Toll FREE:

(USA, Canada, Mexico)

1-800-362-3110

FAX (913) 843-4486



NEED A SPRAYER?

We Got It!

Over 100 models to choose from.
Each built to meet your specific needs.

- Single or dual tanks
- 50-1000 gallonage
- Mechanical or jet agitation
- Diaphragm, piston or centrifugal pump
- Electric or manual hose reel
- Green Garde, Kuritec or Synflex hose
- Hypro JD9CT or Chemlawn gun

SYNFLEX • GREEN GARDE • HANNAY • LESCO • GPI • EARTHWAY • HYPER-CELL

TANKS • PUMPS • VALVES

HANDCANS • METERS

TRUCKCRAFT



PICKUP INSERT DUMPER

For FREE brochure, call toll free 24 hr.

1-800-755-3867

WE SHIP NATIONWIDE

LAWN SPRINKLING CABLE LAYING

WITHOUT A LINE-
WARD LINE
LAYING MACHINE
YOU COULD BE
MISSING THE
BEST BUY ON
THE MARKET!!



- Moves On Tracks,
Not Wheels, For
Superior
Traction
- No Restoration
- Up to 16"
Depths



SINCE
1972

ALSO, Boring
Attachment
Available

Line-Ward Corp.
157 Seneca Creek Road
Buffalo, New York 14224
(716) 675-7373



Get a step ahead of your competition
with a

TURBO TURF HYDRO SEEDING SYSTEM

SEED FASTER, BETTER, AT LESS COST



- Seed-mulch-fertilize
in one fast step.
- Also repair & reno-
vate fast and better.
- No messy straw.
- Great results and
faster germination.
- Very attractive green
appearance.

150 Gal. Systems (2000 sq. ft.) \$ 2795.00

300 Gal. Systems (4000 sq. ft.) \$ 3995.00

500 Gal. Systems (6600 sq. ft.) \$ 4795.00

750 Gal. Systems (1/4 acre) \$ 7995.00

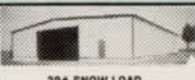
1000 Gal. Systems (1/3 acre) \$ 9995.00

BADGER ASSOCIATES 1-800-822-3437

1108 Third Ave. New Brighton, PA 15066

Circle No. 304 on Reader Inquiry Card

COMMERCIAL EQUIPMENT



50'x90'x14'
\$13,199

30# SNOW LOAD

BUILD IT YOURSELF AND SAVE MONEY. 5,000 SIZES. ALL

STEEL. CALL TODAY FOR BROCHURE AND PRICE QUOTE.

HERITAGE BUILDING SYSTEMS
800-643-5555

BUSINESS OPPORTUNITIES

LAWNCARE BUSINESSES:

Thinking about selling your Lawncare Business? We'd like to talk about the possibilities. If you are doing business in: Cincinnati, Indianapolis, Columbus, Dayton, Chicago, St. Louis, Atlanta, Cleveland, Detroit or Ft. Wayne, we are interested. All communication is confidential. Reply to LM Box 500, c/o LANDSCAPE MANAGEMENT, 131 W. 1st St., Duluth, MN 55802-2065.

TREE TRANSPLANTER

Lightweight, Variable Size Rootball (16" - 28"). Available in 3 models (towable, bucket mount, 3 pt.), and SKID-STEER.

MID DAKOTA CORP.

Box 728 • Garrison, ND 58540

Phone (701)337-5619 or 1-800-327-7154

GSA Contract No. GS-00F-5442A



FOR SALE

COMMERCIAL INSURANCE FOR LAWN CARE FIRMS "GREEN INDUSTRY SPECIALISTS"

M.F.P. Insurance Agency is dedicated to providing comprehensive insurance programs to the Green Industry at competitive prices. We back up this dedication with a staff of professionals who understand every facet of your business, from marketing to customer service. We know how to properly insure your company whether you're a sole proprietor or a multi-state operation.

Just as your customers look to you for lawn care advice, people come to us for insurance advice because they do not want to become insurance experts themselves. If you want good advice, the right coverage, and competitive rates, please contact:

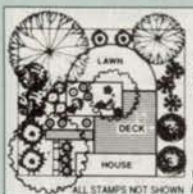
Richard P. Bersnak, President

Jill A. Leonard, V.P.

1-800-886-2398
FAX: 614-221-2203

M.F.P. Insurance Agency, Inc.
50 West Broad Street, Suite 3200
Columbus, OH 43215-5917

Circle No. 301 on Reader Inquiry Card



LANDSCAPE DESIGN KIT 3

48 rubber stamp symbols:
trees, shrubs, rocks, step stones,
vine, & more. 1/4-1 3/4 in. dia
\$74.95 - \$4.50 sh. FREE 28 PAGE
CA orders add 7 3/4% tax. BROCHURE
AMERICAN STAMP CO.
12290 Rising Rd., Dept. 493
Wilton, CA 95693
ALL STAMPS NOT SHOWN MasterCard Phone (916) 687-7102

SERVICES

- Ignite sales growth
- Boost profits
- Beat the competition

Let us help you make these goals come true.

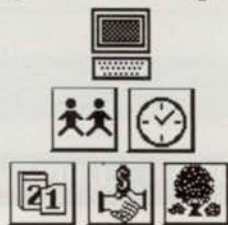
Call

Wandtke & Associates
800-966-3546

15 years of guiding owners toward the secrets of business success

SOFTWARE

Building blocks for your company



It takes the right tools to build a successful landscape company: good people, equipment, time and money. It takes a good management software program to pull these tools together to stay successful. SuperScape for Windows and Macintosh—the management tool for building a successful company. Call for more information and a free demo.

SuperScape™

Landscape Management Software

A division of SoftQuest, Inc.

800-299-9991 or 512-452-4500

Circle No. 302 on Reader Inquiry Card

SOFTWARE

Special Offer On-CLIP

| | | |
|--|--|---|
| 125 User Package Original Price \$695 Your Special Price |  | Unlimited User Package Original Price \$1195 Your Special Price |
| \$595 | Order Today Call | \$1095 |
| SAVE \$100! | 1-800-THE-LAWN | SAVE \$100! |
| VISA AND MASTERCARD ACCEPTED | | |

Use our
**Blind Box Service for
Confidential Results to
Your Classified
Advertising!**

TRIMS

Business Management
Software for Landscape
and Lawn Care Contractors

- Customer Billing
- Accounts Receivable / Payable
- Job Cost Analysis
- General Ledger
- Payroll

Call or write for your
free TRIMS Demo Disk:

TRIMS Software Int'l.
6220 E. Thomas Road
Suite 303
Scottsdale, AZ 85251
(692) 481-9710



LAWN ASSISTANT

1  # 1

To get a FREE 90 page information booklet on the #1 software for the lawn and tree care industry

Call Toll Free:
1-800-422-7478

Real Green Computers
1970 Winner Street, Walled Lake, MI 48390

Circle No. 300 on Reader Inquiry Card

RATES: \$1.25 per word (minimum charge, \$40). Bold face words or words in all capital letters charged at \$1.50 per word. Boxed or display ads: \$105 per column inch-1x (one inch minimum); \$100-3x; \$95-6x; \$90-9x; \$85-12x. (Frequencies based on a calendar year). Agency commissions will be given only when camera-ready art is provided by agency. For ads using blind box number, add \$20 to total cost of ad per issue. Send ad copy with payment to Brian Kanaba, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130 or call 216-891-3155. Fax Number 216-826-2865. VISA MASTERCARD and AMERICAN EXPRESS accepted.

BOX NUMBER REPLIES: Mail box number replies to: LANDSCAPE MANAGEMENT, Classified Ad Department, 131 W. 1st St., Duluth, MN 55802-2065. Please include box in address.

BUSINESS OPPORTUNITIES

Attention Employers and Job Seekers! Employers submit current job openings to the quickest, least expensive and most comprehensive job listing publication in landscaping, grounds/golf course maintenance & related horticulture fields. Ad deadlines are the 3rd & 17th of each month. \$14.95 for unlimited detail and nationwide exposure. Call for vacancy notice form. **Job Seekers** subscribe to the freshest source of national job openings in the fields of horticulture, 6 issues (3 mos.) for only \$19.95. MC/Visa. Call 1-800-428-2474, Fax 1-800-884-5198. Ferrell's JOBS IN HORTICULTURE, 154 E. Chapel Ave., Carlisle, PA 17013-3435. 1/94

EXCELLENT BUSINESS OPPORTUNITY. FOR SALE: APPROXIMATELY 6000 MEXICAN FAN PALMS CERTIFIED FOR USE IN CALIFORNIA. HEIGHTS RANGE FROM 4'-18", AVERAGES APPROXIMATELY 11". FOR MORE INFORMATION WRITE OR CALL: BMF PARTNERSHIP, PO BOX 1568, SCOTTSDALE, ARIZONA 85252, 602-968-8549. 12/93

NOW... Learn professional landscaping and gardening at home. Accredited program provides thorough training in all phases of commercial and residential landscaping. Diploma awarded. Free brochure describes program and opportunities in detail. Call 800-326-9221 or write Lifetime Career Schools, Dept. LF01B3, 101 Harrison St., Archbald, PA 18403. 11/93

NaturaLawn® of America provides the Green Industry a successful, growth oriented, lawn care program. Discuss the opportunities available to you by calling the leader in **organic-based** lawn care. The franchise opportunity of the 90's. 800-989-5444. 12/93

BUSINESS FOR SALE

FOR SALE: ESTABLISHED GARDEN CENTER & LANDSCAPING BUSINESS in Marquette, Michigan. Owners retiring. Extensive perpetual inventory. Contact **TIMBERCREST** 1460 M-28 East, Marquette, MI 49855. Phone: (906)249-3984 days: 249-3411 eve. 12/93

Boston based Tree and Landscape Firm for sale. Established 1981. Executive clientele, commercial and residential. Grosses 2-300,000. Will sacrifice for \$100,000 including equipment and leased land plus building. Contact Carney Tree & Landscape, Inc. (617)361-7376. 11/93

EDUCATIONAL OPPORTUNITIES

IMPROVE PROFITS & expand business with well-trained, professional employees. Free catalog of over 100 training videos from California Polytechnic State University. Perfect for landscape companies, grounds crews, designers, etc. Call VEP at 1-800-235-4146. 12/93

SOFTWARE

Route Manager System for scheduling and accounts receivable record keeping. Serving the Lawn Care Industry since 1982. List price \$350. Fortunate Computers, 46 N. 4th Street, Coplay, PA 18037. 800-275-0620. 12/93

EQUIPMENT FOR SALE

REINCO M80C Straw Blower, John Deere diesel engine, 15 ton per hr. capacity. Very good condition. \$11,500. (410)239-2428. 11/93

PIPE LOCATOR INEXPENSIVE! Locates, traces underground drain, water pipe lines of clay, PVC, ABS, steel, cement. Finds sprinklers, valves, clogs. Bloch Company, Box 18058, Cleveland, Ohio 44118. (216)371-0979. TF

HYDRO-MULCHERS AND STRAW BLOWERS: New and used. **JAMES LINCOLN CORPORATION**, 3220 S. Jupiter Rd., Garland, TX 75041. (214)840-2440, (800)551-2304. TF

NEW/USED EQUIPMENT AND RENTALS—Asplundh, Hi Ranger, Holan and Lift-All Forestry Bucket Trucks, Chip Trucks and Chippers. Mirk, Inc., (216)669-2000, 7629 Chippewa Road, Orrville, Ohio 44667. TF

SPYDERS- New/Used/Rebuilt. Full line of replacement parts and update kits. Kubota, Ruggerini, Kohler and Onan engines and parts. Nichols-Fairfield torque hubs. We repair and rebuild Spyder hydraulic pumps and motors. **FAST SERVICE.** Call or write: Mobile Lift Parts Inc., 5402 Edgewood Rd., Crystal Lake, IL 60012. (815)455-7363, (800)397-7509, (815)455-7364, FAX (815)455-7366. 1/94

Reel Mowers: Hydraulic unit for Steiner Turf Tractor. Excellent condition, used once. \$5200 — Fertilizer Spreader: 4 ton stainless steel hopper, dual rear distribution, tandem axle, high flotation tires. \$1,400 — Spray Rig: Fits Chevy S10 or Ford Ranger, molded fiberglass with 150 gal. cap. and dry storage for 15/50# bags. Excellent cond. \$2100 — Jacobsen Aerator: 24 width, 5 hp Honda Engine, excellent working condition. \$985, 513-8 71-3992 — 86 Chevy 3/4 ton spray trucks. Fiberglass molded tanks and beds with 375 gal liquid cap and dry storage for 20/50# bags. 50,000 miles, newer tires. Good cond. \$6,800, 4 available — 1986 Chevy 3/4 ton service truck with or without 200 fiberglass spray unit. D50 Hypro pump, 5 hp. B & S Engine, with 300' hose. Together \$7,400, spray unit alone \$1,650. Call with best offers: 513-871-3992. 11/93

BUCKET TRUCKS: Straight Stick, Corner Mount and Knuckle Boom Cranes. Brush Chippers - New Morbark Disc and Drum Style. New Rayco Stump grinders. Best prices anywhere. Used Chippers - Asplundh, Morbark, etc. 2 to 8 usually in stock. Sprayers, Dumps, Stakes, Log Loaders, Crew Cab Chip Box Dumps, Railroad Trucks, 50 in stock. Sold as-is or reconditioned. We also buy your surplus equipment. Opdyke's, Hatfield (Philadelphia Area). 215-721-4444. TF

Finn Hydroseeders, Mulch Spreaders, Krimpers, Pit Burners, Fiber Mulch & Tackifiers. New & Used. **Wolbert & Master, Inc.,** P.O. Box 292, White Marsh, MD 21162. 410-335-9300, 1-800-234-7645. TF

BUCKET TRUCK: Hi Ranger 65', 57', 50'. Skyworkers with chip boxes. Asplundh bucket trucks with chip boxes. Asplundh brush chippers. Bean 55 gal. sprayers. Pete Mainka Enterprises, 633 Cecilia Drive, Pewaukee, WI 53072. 800-597-8283. TF

REINCO HYDROGRASSERS and power mulchers in stock. Opdyke Inc., (Philadelphia Area) 215-721-4444. TF

FOR SALE

New Image design System. 80 mb/16mhz (hard drive) Everex 386 Sx Computer. 387 Sx math coprocessor, Sony 12" color monitor, 12" Digitizing tablet, Super VHS camcorder, VHS VCR, Imaging software (Western and Northern Libraries). CAD compatible \$7,000; (214)265-7667. 11/93

BROUWER EQUIPMENT NEW & USED. LARGE INVENTORY OF PARTS. ASK FOR BRIAN. ALSO "VIBRO-NETTERS" IN STOCK. HUBER RANCH POWER EQUIPMENT, SCHNEIDER, INDIANA, 1-800-553-0552. 11/93

Chemical Mixing/Loading Pad Construction Details: (1) "Designing Facilities for Pesticide and Fertilizer Containment" Handbook; or (2) Design/Plan Packet, Two concrete pads. To receive order information call (405)377-3841 and leave your mailing address. 11/93

For Sale: Jacobsen HF-5 Diesel, \$4,000. Also, Toro GM-3 Greens Mower, sharpened new reels, \$2,300. National 84 cut \$1,100. Toro 5 Gang Roughmaster mowers, sharpened, \$3,000. 313-653-5695. 11/93

HELP WANTED

LANDSCAPE MAINTENANCE MANAGER Design/Build and Maintenance firm seeks person to manage maintenance operations and IPM/PHC programs. Candidate must possess B.S. degree in Horticulture, 3-5 years experience, commercial applicators license and strong organizational skills. Send Resume to: **ARCHITERRA**, 25975 N. Diamond Lake Rd., Ste. 108, Mundelein, IL 60060. 11/93

INDUSTRY PROFESSIONALS Hermes Landscaping and Nursery, a solid, stable, and progressive company, headquartered in Kansas City for nearly 30 years, is seeking production and sales professionals. Self-motivated professionals needed in various critical production and sales positions in our Nursery, Landscaping, and Maintenance Divisions. Must have BS Degree and 2-4 years related experience. Send resume and salary requirements to: Hermes Landscaping, PO Box 14336, Lenexa, KS 66215 or call Tracy Strohm at (913)888-2400. 11/93

Landscape Management and Construction/Sales: New Jersey's largest Corporate Services Company seeks highly motivated individual to assist in the continued growth of its Landscape Management Company. Areas of responsibilities include: prospecting, estimating, and sales. Must have strong background in Professional Landscape Management Field together with proven sales experience. Please send complete resume and work history in confidence to: Control Environmental Services, 737 New Durham Road, Edison, NJ, 08817. Attention Mr. Stewart. 12/93

HELP WANTED

Hands-on landscape and horticulture manager to oversee all aspects of executive estate in beautiful west central Ohio. Needs to be knowledgeable of lawn care, roses, indoor/outdoor plant care, formal gardens, ponds, pool maintenance and related activities. Send resume, references, salary history to LM Box 504. 11/93

HELP WANTED

LANDSCAPE MAINTENANCE & GENERAL SUPERINTENDENT: Largest landscape maintenance company in the nation seeking individuals with 3-4 years experience. Must be able to make decisions, be creative, self-motivated, organized with strong supervisory skills. San Francisco Bay Area location. EOE. Please send resume to: Environmental Care, Inc., 825 Mabury Road, San Jose, CA 95133. 11/93

Landscape Design/Sales: Established landscaping company is seeking a highly qualified, motivated person for residential and commercial landscape design and sales. Candidate must have at least three years experience and should exhibit strong management and personnel skills with a vast knowledge of Southeast Region plant material. Contact or send resume to: Mike Summers; Gradco, Inc., 7341 Cahaba Valley Road, Birmingham, Alabama 35242, Phone: (205)991-3981. 11/93

KT ENTERPRISES, INC., a commercial landscape management firm servicing the Washington, DC Metropolitan market, is now accepting applications for employment in their landscape maintenance department for the 1994 season and beyond. All positions offer excellent salary, health benefits, retirement and, most importantly, an incomparable opportunity to work in a quality organization that will continue to offer professional satisfaction. Please send resume to: Mr. Doug Sevachko, KT Enterprises, Inc., 4001 Westfax Drive, Chantilly, VA 22021 if you are interested in any of the following positions: Pruning Department Supervisor, Maintenance Department Supervisor, Maintenance Department Foreman, Pruning Department Foreman, Floral Installation Foreman, Turf and Ornamental Plant Specialist. 11/93

LANDSCAPE CONSTRUCTION: We are an award-winning commercial landscape company based in Austin, Texas. Our primary focus has been landscape and irrigation maintenance. We have developed a national reputation for consistent quality. We are establishing a construction division. If you have an established track record of securing and building quality projects, we want to visit with you. This is a leadership position with bottom-line accountability. Successful applicant will have minimum of five years experience, degree in related field and clear communication skills. Salary, profit sharing and benefits are best in the industry. Qualified applicants please send resume to "Construction Applicant", PO Box 163386, Austin, TX 78716-3386. 11/93

PROGRESSIVE COMPANY, LEADER IN THE NURSERY INDUSTRY, IS INTERVIEWING FOR: SALES CUSTOMER SERVICE POSITION, LOCATED IN CENTRAL NEW ENGLAND. APPLICANT MUST BE POSITIVE, ENERGETIC, ASSERTIVE, WITH 2-3 YEARS EXTENSIVE KNOWLEDGE OF: NURSERY STOCK PRODUCTS; LANDSCAPE CONTRACTORS; TELEMARKETING; CUSTOMER INTERPERSONAL RELATIONSHIPS; SHIPPING; INVENTORY CONTROL, PROCESSING ORDERS, AND DESIRE FOR ACCOUNT RESPONSIBILITY WITH LIMITED ON THE ROAD SELLING. SALARY, BENEFITS, AND GROWTH POTENTIAL MATCH THE EXPERIENCE NECESSARY FOR THIS POSITION. SEND RESUME AND SALARY HISTORY TO BOXHOLDER, PO BOX 1254, HARTFORD, CT 06143-1254. 11/93

LANDSCAPE SUPERINTENDENT: Rapidly growing, progressive Chicago firm seeks aggressive self-motivated individual for a maintenance superintendent position. Must have experience in scheduling, purchasing, quality control, customer relations, training, and personnel policies. A strong horticultural background and a familiarity with corporate and commercial sites a must. Send resume to: Tandem Landscape Company, Attn: James DeRoche, 33W480 Fabyan Parkway, West Chicago, IL 60185. 11/93

LANDSCAPE ARCHITECT: A well established landscape firm in the metro Atlanta area is now hiring a Landscape Architect. Candidate must be a registered L.A. and have extensive experience with Design/Build background. Please send your resume to **SCAPES, INC.,** 1355 Terrell Mill Rd., Bldg. 1482, Suite 150, Marietta, GA 30067 or fax to 404-956-0140. 11/93

STATEMENT OF OWNERSHIP MANAGEMENT AND CIRCULATION (Required by 39 U.S.C. 3685)

- 1A. **Title of Publication:** LANDSCAPE MANAGEMENT
- 1B. **Publication Number:** 08941254
2. **Date of Filing:** 9-24-93
3. **Frequency of Issue:** Monthly
- 3A. **Number of Issues Published Annually:** 12
- 3B. **Annual Subscription Price:** \$30.00
4. **Complete Mailing Address of Known Office of Publication:** 131 West First Street, Duluth, St. Louis County, Minnesota 55802-2067
5. **Complete Mailing Address of the Headquarters of General Business Offices of the Publisher:** 7500 Old Oak Boulevard, Cleveland, Ohio 44130
6. **Full Names and Complete Mailing Address of Publisher:** Jon Mioducki, 7500 Old Oak Boulevard, Cleveland, OH 44130
Editor: Jerry Roche, 7500 Old Oak Boulevard, Cleveland, Ohio 44130
Managing Editor: Terry McIver, 7500 Old Oak Boulevard, Cleveland, Ohio 44130
7. **Owner. All Common Stock of Advanstar Communications Inc. is owned by Advanstar Holdings Trust, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Holders of 1.0% or more of the outstanding shares of Advanstar Holdings Trust as of July 7, 1993:** General Electric Capital Corporation, 292 Long Ridge Road, Stamford, CT 06902; Umbwad & Co., c/o United Missouri Bank N.A., PO Box 419260, ATTN: Trust Operations, Kansas-City, MO 64141; How & Co., c/o The Northern Trust Company, 50 S. LaSalle Street, Chicago, IL 60675; Arbeit & Co., 3434 Norwest Center, Minneapolis, MN 55402; Lutheran Brotherhood, 625 Fourth Avenue South, Minneapolis, MN 55415; Michael L. Aster, 859 Willamette Street, Eugene, OR 97440; Goldman Sachs & Co., 85 Broad Street, New York, NY 10004; TCW Special Placements Fund II, Richard Grantham, Trust Company of the West, 400 S. Hope Street, Los Angeles, CA 90071; Edward D. Aster, c/o Advanstar Holdings Trust, 7500 Old Oak Boulevard, Cleveland, OH 44130; Kidder Peabody Group, Inc., 2 Broadway, New York, NY 10004; Gerlach & Co., c/o Citibank NA, 20 Ex Pl, Box 1530, Grand Central Station, New York, NY 10043.

8. **Holders of 1.0% or more of Advanstar Communications Inc. Mortgages or Other Securities as of July 7, 1993.** General Electric Capital Corporation, 292 Long Ridge Road, Stamford, CT 06902; Society National Bank, 800 Superior Avenue, Cleveland, OH 44114; I & A International Co., Ltd., c/o Kidder, Peabody & Co., 10 Hanover Square, New York, NY 10005; Bank of the West, 180 Montgomery Street, San Francisco, CA 94104; Mitsui-Nevitt Capital Corp., 330 Madison Avenue, 36th Fl., New York, NY 10017; Norwest Bank MN North, NA, 230 West Superior Street, Duluth, MN 55802; Nippon Housing Loan Co., Ltd., c/o Kidder, Peabody & Co., 10 Hanover Square, New York, NY 10005; Kansallis-Osake-Pankki, 575 Fifth Avenue, New York, NY 10017.

9. Does Not Apply

10. Extent and Nature of Circulation

| | Average No. Copies Each Issue During Preceding 12 Months | Average No. Copies of Single Issue Published Nearest to Filing Date |
|---|---|--|
| A. Total Number of Copies (Net Press Run) | 48,296 | 48,190 |
| B. Paid and/or Requested Circulation | | |
| 1. Sales through dealers and carriers, street vendors and counter sales | None | None |
| 2. Mail Subscription | 44,099 | 44,881 |
| C. Total Paid and/or Requested Circulation | 44,099 | 44,881 |
| D. Free Distribution by Mail, Carrier or Other Means, Samples, Complimentary, and Other Free Copies | 3,468 | 3,059 |
| E. Total Distribution | 47,567 | 47,940 |
| F. Copies Not Distributed: | | |
| 1. Office use, left over, unaccounted, spoiled after printing | 729 | 250 |
| 2. Return from News Agents | None | None |
| G. TOTAL | 48,296 | 48,190 |

I certify that the statements made by me above are correct and complete.

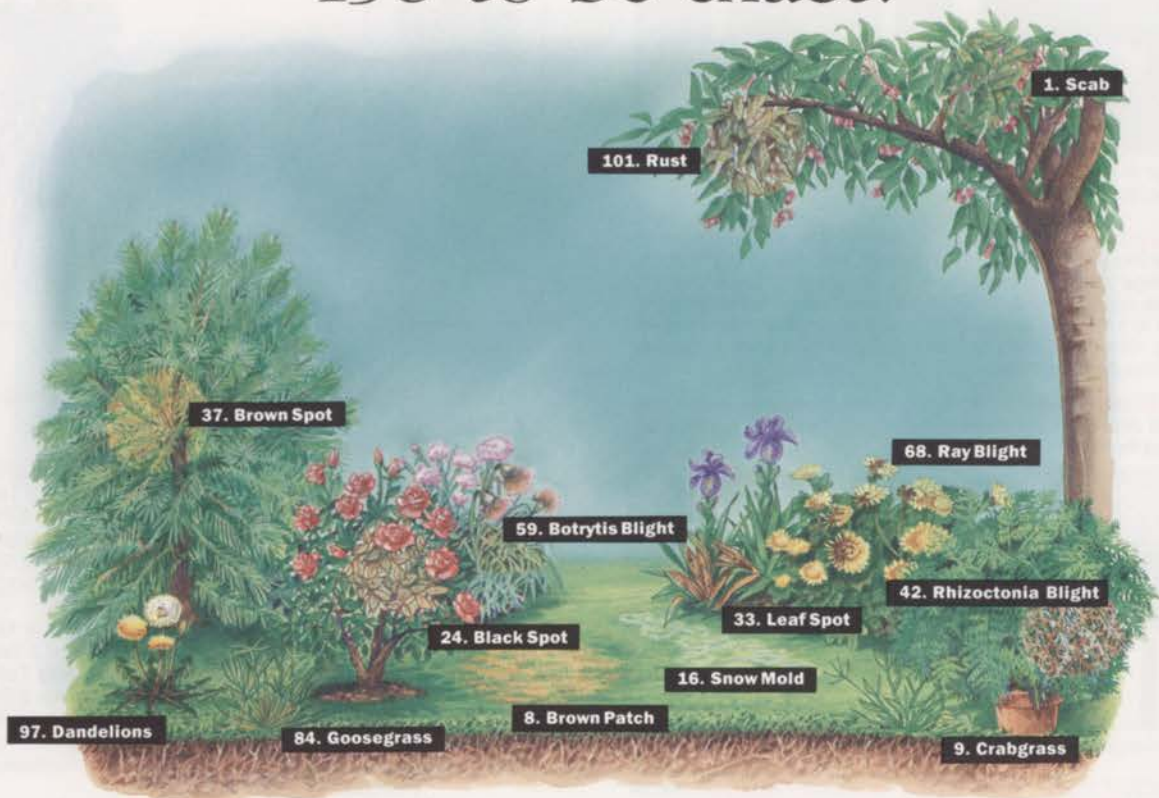
Signed: Robert A. Dahl, Circulation Director

ADVERTISER INDEX

| | | |
|-----|---------------------------|-------|
| 101 | Andersons | 35 |
| | Dow Elanco (LCO) | 6-7 |
| | Dow Elanco (LCO) | 54-55 |
| | Excel | 39 |
| 103 | General Motors Corp .. | 44-45 |
| 104 | Grasshopper | 11 |
| 105 | Harmony Prod..... | 40 |
| 106 | Hiniker | 44 |
| 107 | Howard Price..... | 19 |
| 108 | ISK Biotech | Cv3 |
| 274 | Knox | 46-47 |
| 109 | John Deere (LCO) | 2-3 |
| 110 | John Deere (Golf)..... | 2-3 |
| 112 | Koos..... | 48 |
| 123 | Lesco..... | 25 |
| 114 | Lofts..... | Cv4 |
| 115 | Monsanto (LCO) | 36-37 |
| 116 | Monsanto (Golf)..... | 36-37 |
| 117 | Nor Am | 41 |
| 118 | Pickseed..... | 17 |
| 119 | Sandoz (LCO)..... | 20-21 |
| 120 | Sandoz (Golf) | 20-21 |
| 124 | Tee 2 Green | Cv2 |
| 121 | United Horticulture | 23 |
| 144 | Walker Mfg | 26 |
| 153 | Wells | 53 |

This index is provided as an additional service. The publisher does not assume any liability for errors or omissions.

Use the Turf Care® Pros for any number of growing problems. 138 to be exact.



Professionals count on the Turf Care Pros. To treat diseases, Daconil 2787® fungicide is the cornerstone of your management program. The broadest-spectrum fungicide on the market, it controls 18 disease-causing organisms on turf and 55 major ornamental diseases. And there's never been a documented case of disease resistance to Daconil 2787.

For pre- and post-emergent herbicide control of annual grasses and broadleaf weeds, it's Dacthal® and Daconate® 6. On pesky broadleaf weeds, use 2 Plus 2.



Always follow label directions carefully when using turf chemicals.

And round out your program using Frigate® with Roundup® to control perennial and annual weeds. Together with Daconil 2787, they all create a complete professional management program.

When it comes to turf and ornamental care, count on the Turf Care Pros. And count out labeled diseases and weeds — 138 to be exact.

ISK Biotech Corporation, Turf & Specialty Products Division, 5966 Heisley Road, P.O. Box 8000, Mentor, OH 44061-8000.

® Registered trademark of ISK Biotech Corporation.

*Roundup is a registered trademark of Monsanto Company.



Excellent Dark Color: When compared to other tall fescues, Rebel Jr provides the deep, dark color preferred by turf professionals.



The darker color of Rebel Jr is apparent in these test plots comparing Rebel Jr to other tall fescues.

Less Clippings: The lower, slower growth rate of Rebel Jr results in easier mowing and 30% less clippings. However, it is proven to have an advantage over the current, much-talked-about "extreme dwarfs"; as Rebel Jr does not grow so slowly that the plant's rate of establishment, vigor, tolerance to traffic and stress, or recuperative qualities are affected. The moderately slow growth rate of Rebel Jr is a distinct advantage over that of the extreme dwarf varieties.

Rate of Establishment: While Rebel Jr displays moderately slow growth, its rate of establishment is faster than the extreme dwarf varieties such as Bonsai.



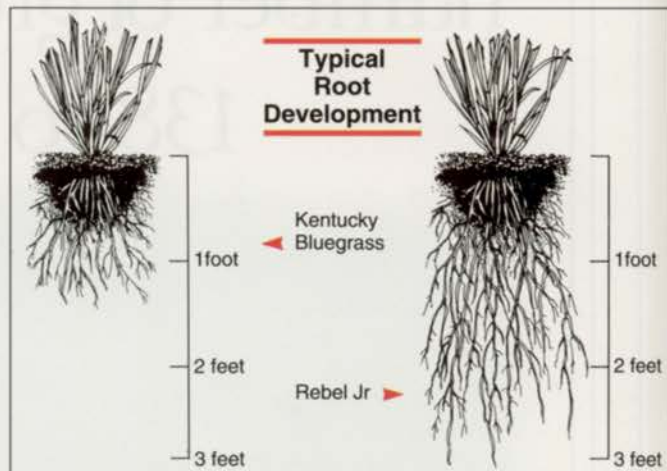
The dense, slower growth of Rebel Jr can be seen one week after mowing.

Top Performance with Less Maintenance: Rebel Jr from seed or sod is adaptable to full sun or moderate shade. It needs only low to medium maintenance and uses 25% less fertilizer than Kentucky bluegrass.



Rebel Jr will give excellent performance in sun or shade. It's ideal for use in hard-to-maintain areas such as golf course green banks, slopes and bunker faces.

Improved Drought Tolerance: A deep, extensive root system allows Rebel Jr to display excellent drought tolerance.



Recommended Seed Mixtures for Sun or Shade

HOME LAWNS

100% Rebel Jr Tall Fescue
or
90% Rebel Jr Tall Fescue
10% Baron or Nassau
Kentucky Bluegrass

34% Rebel Jr Tall Fescue
33% Rebel II Tall Fescue
33% Tribute Tall Fescue

GOLF COURSE ROUGHS
90% Rebel Jr Tall Fescue
10% Georgetown Kentucky
Bluegrass

30% Rebel Jr Tall Fescue
30% Rebel II Tall Fescue
20% Tribute Tall Fescue
10% Palmer II Perennial
Ryegrass
10% Georgetown Kentucky
Bluegrass

ATHLETIC FIELDS

80% Rebel Jr Tall Fescue
10% Palmer II Perennial
Ryegrass
10% Baron or Nassau
Kentucky Bluegrass

30% Rebel Jr Tall Fescue
30% Rebel II Tall Fescue
20% Tribute Tall Fescue
10% Palmer II Perennial
Ryegrass

10% Baron or Nassau
Kentucky Bluegrass

UTILITY TURF

100% Rebel Jr Tall Fescue
or
34% Rebel Jr Tall Fescue
33% Rebel II Tall Fescue
33% Tribute Tall Fescue

GOLF COURSE BUNKERS

Rebel Jr Tall Fescue Sod
or
Rebel Jr, Rebel II and Tribute Tall Fescue Sod

Use Rebel Jr wherever a tall fescue is suitable. You'll get dark color, moderately slow growth and top performance in sun or shade.



Lofts Seed Inc.
World's largest marketer of turfgrass seed
Bound Brook, NJ 08805
(908) 356-8700 • (800) 526-3890

Lofts/NewEngland
Arlington, MA
(617) 648-7550
(800) 648-7333

Lofts/Maryland
Beltsville, MD
(301) 937-9292
(800) 732-3332

Lofts/Great Western
Albany, OR
(503) 928-3100
(800) 547-4063

Sunbelt Seeds, Inc.
Norcross, GA
(404) 448-9932
(800) 522-7333

Lofts/Ohio
Wilmington, OH
(513) 382-1127
(800) 328-1127

To locate the Lofts' distributor nearest you, call (800) 526-3890 (Eastern US) • (800) 547-4063 (Western US)