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LANDSCAPE *management*

AUGUST 1997 • \$4

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**LM Reports:
snow removal**

1997
EMERALD
AWARD
winners

CRABGRASS

TAKE CONTROL WITH PENDIMETHALIN.

CRABGRASS CONTROL			
PRODUCT	Rate (lb ai/A)	% Control 97 DAT	% Control 129 DAT
PENDIMETHALIN 60WDG	3.0	97	97
PENDIMETHALIN 60WDG	1.5+1.5	98	98
BARRICADE 65WG*	0.75	100	100
DIMENSION 1EC*	0.5	99	99
TEAM .87 FG*	1.5+1.5	88	82

Ohio State University 1996

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Here's how it works: After Pendimethalin makes

CRABGRASS CONTROL			
PRODUCT	Rate (lb ai/A)	% Control 84 DAT	% Control 154 DAT
PENDIMETHALIN 60WDG	3.0	100	93
PENDIMETHALIN 60WDG	1.5+1.5	100	99
BARRICADE 65WG*	0.75	100	95
DIMENSION 1EC*	0.5	100	86
RONSTAR 2G*	2+2	97	24

Virginia Polytechnic Institute & State University 1996

PENDIMETHALIN

R A S S ?

contact with the germinating weed seed, it disrupts the seed's biochemical processes, which makes the weed seed stop growing—and start dying—*before* emerging.

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CRABGRASS CONTROL		
PRODUCT	Rate	% Control 120 DAT
PENDIMETHALIN 60WDG	1.5	97
BARRICADE 65WG*	.48	92
DIMENSION 1EC*	.38	95
RONSTAR 2G*	3	92

Penn State University 1996

alone, or in combination with fertilizer products. Or you can use the sprayable formulations, available as a 3.3 EC, 60 WDG and 60WP.

No wonder professional turf managers have made Pendimethalin the #1 preemergent herbicide.

So take control of your turf—and your reputation. Use Pendimethalin herbicide to control crabgrass and more. Because the only thing you should see growing like a weed on your golf course is beautiful grass. Call now for more information or for the distributor nearest you.

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RON HALL

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So you ducked back into the shop to escape the late summer heat? To help you out, our report this month is on snowblowers. Safety is a key concern. The biggest safety risk is trying to clear the discharge chute without first turning off the machine. Automatic shut off systems are standard.

CURT HARLER

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Suggestions to keep annuals healthy and colorful throughout summer's hottest days and into the fall.

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All mulch products have their plusses and minuses, so what it comes down to is what your customers want to see in their yards or gardens.

HEATHER FRANTOM

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Our 35th Anniversary Issue is getting closer. October's the month, and you are the subject.

We're excited about the prospects for what is sure to be an extra-special "keeper" issue. We know you like to keep our past issues within easy reach, but you'll probably want to keep this one under lock and key, or in a glass case, with laser beam alarms criss-crossing the carpet all around.

Our Anniversary Issue will, indeed, be a special publication, one that features many of the people who have helped make the green industry go and grow since 1962.

Would you like to be one of those we mention?

You can be, if you write in soon. Your accomplishment need not be grand or revolutionary. We want to hear about how you, as a serious player in the professional green industry, got your start in the business, and where you are now. Also, how have you seen the industry change, and what do you see happening in the years ahead?

We've gotten a real nice response to our first request, which we made back in April:

► One golf course superintendent tells us he got his start in a golf course pro shop in 1971. Ten years later, he got a course to manage.

► "I was recruited into the landscape industry in 1985, and it's been a great experience. Twelve years later and I still look forward to getting up and going to work," says Kent Miller, vice president of The Groundskeeper, a four-state, four-star company out West.

► "Bidding gets tougher each year because of the large amount of low bidders and small, up-start companies," writes a landscape design/build subscriber from Illinois.

► "Keep up the good work!" says Charlene Crowley of Shaker Hts., Ohio, who is a landscape

design consultant with The Pattie Group in Nov-
elty. Her dad started Crowley Lawn Service Co.,
now owned by Phil Fogarty. With the serious
pros, longevity and crossed paths are common.

► "My birth as a full-fledged golf course su-
perintendent became a reality in 1962, at the
Quincy Country Club, Quincy, Illinois. I am still
a golf course superintendent and very proud of
it," writes Oscar
Miles of The Merit
Club, Libertyville,
Ill. "I was very fortun-
ate to have had the
friends and profes-
sionals encouraging
me during my early
days of getting an
education and expe-
rience. My mentors
and family gave me
the confidence to
succeed."

That's what
we're looking for.
And send along a
photo if you can.
**We need your con-
tribution by Sep-
tember 1.**

But also be sure
to let us know how we can better serve you. If
you want to see a particular type of topic covered
that we've not run for awhile, let us know.

Thanks in advance for your interest, and for
your support of LANDSCAPE MANAGEMENT
through the years! **LM**

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or rhall@advanstar.com

Let's hear from you this anniversary year



Terry McIver

TERRY McIVER
Editor-in-Chief

*We want to
know how you
got your start in
the business,
and where you
are now. How
has the industry
changed, and
what do you see
happening in the
years ahead?*

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Mean Turfgrass Quality Ratings of Kentucky Bluegrass Cultivars for Each Month Grown Under **High Maintenance** at Seventeen Locations in the U.S. & Canada
1991 Data

Turfgrass Quality Ratings 1-9; 9=Ideal Turf; Months 1/

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
Midnight	5.3	5.7	5.2	5.2	6.4	6.4	6.3	6.3	6.3	6.6	5.9	5.0	6.2
Unique	6.3	6.7	6.3	5.6	6.2	6.3	6.4	6.3	6.4	6.5	5.5	5.2	6.2
Glade	3.0	3.8	5.1	5.5	6.1	5.9	6.0	5.8	6.4	6.6	5.7	4.7	6.2
RAM-I	4.7	4.7	5.3	5.5	5.8	5.8	5.9	5.7	6.3	6.5	5.9	5.5	6.1

Under high maintenance, Ram I ranked fourth out of 125 entries.

Mean Turfgrass Quality Ratings of Kentucky Bluegrass Cultivars for Each Month Grown Under **Low Maintenance** at Sixteen Locations in the U.S.
1991 Data

Turfgrass Quality Ratings 1-9; 9=Ideal Turf; Months 1/

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
Midnight	5.3	4.7	6.0	4.8	6.7	5.7	5.3	5.6	6.5	5.7	5.6	6.0	5.7
Barmax	6.3	5.0	6.0	6.1	6.8	5.8	5.0	4.9	5.5	5.0	4.9	5.0	5.7
RAM-I	5.3	5.3	4.0	5.1	6.4	5.7	5.1	4.9	5.3	5.6	5.3	4.3	5.5

Under low maintenance, Ram I ranked third out of 62 entries.

So whether you're producing sod that will become someone's well-manicured lawn or seeding a low-maintenance area, count on a proven reliable...Ram I.



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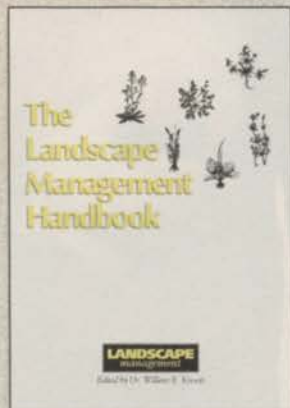
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The Landscape Management Handbook provides a unique, single-source reference of comprehensive information on a variety of turf and landscape topics. It's an ideal handbook for golf course and lawn care superintendents and crew members, and is also appropriate for schools that teach basic turf and landscape management.

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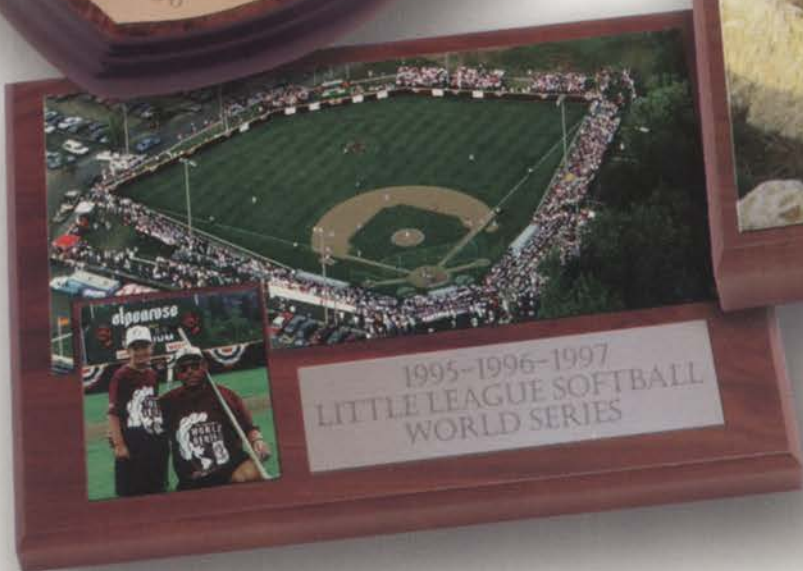
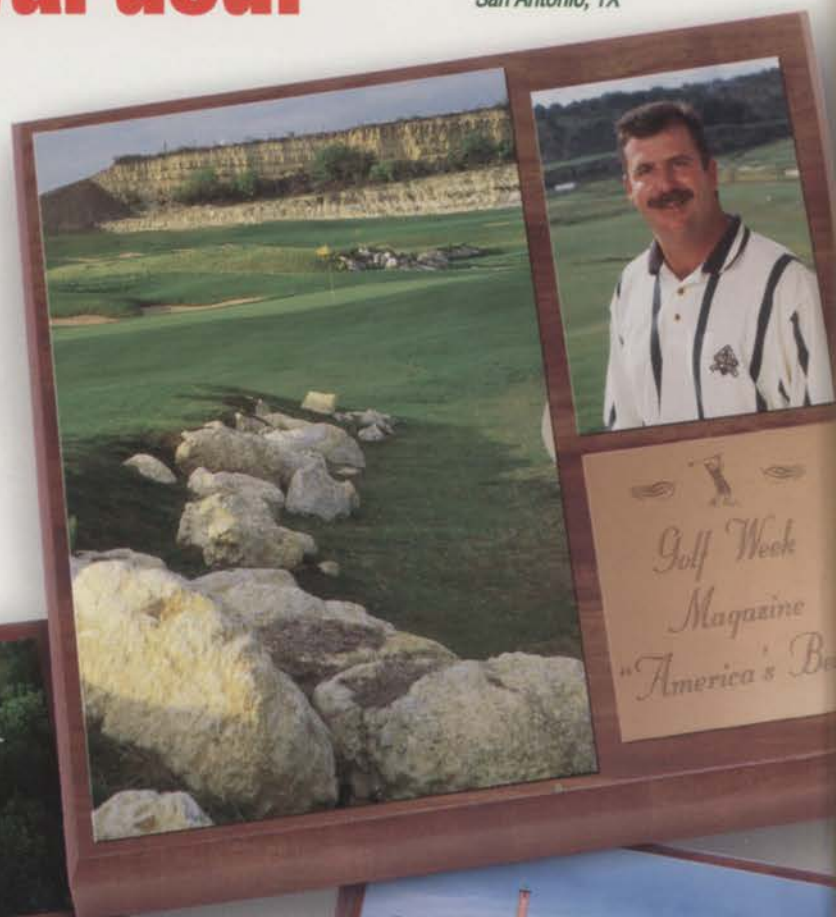
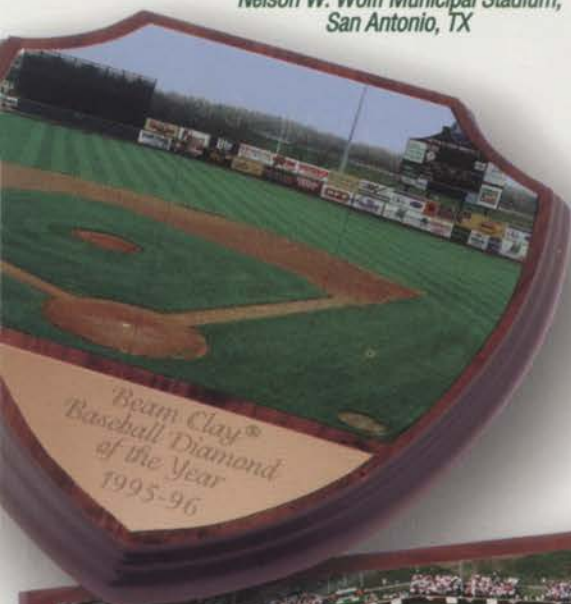
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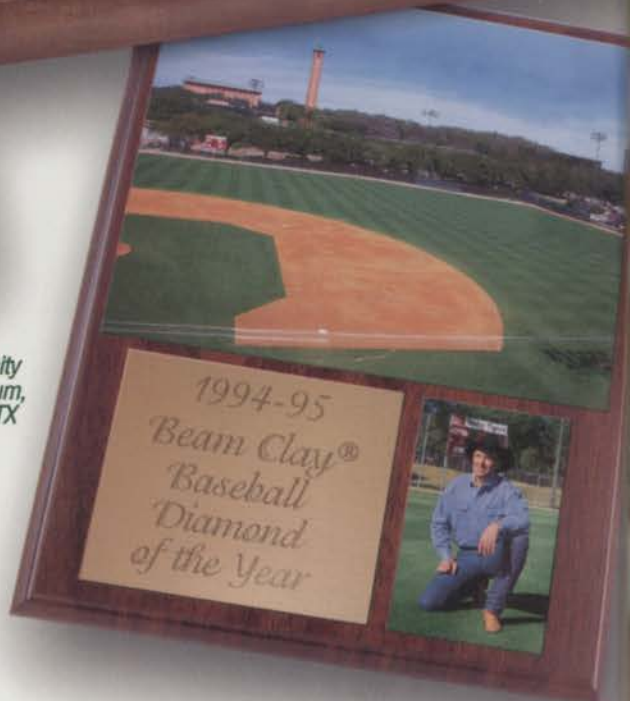
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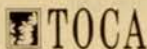
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Fungal disease at work on white spruce

My white spruce are dropping needles. On some branches I have noticed a 6 to 10-inch circle of dead needles. Many branches are dead. They seem to die from the outside in. Several people have told me the problem might be needle cast. I have seen this in southern Minnesota. What do you think?

—MINNESOTA

Your problem appears to be either a needle cast disease called rhizosphaera or cytospora canker. Both are diseases caused by fungi, and both usually start from the lower portion of the tree and spread upwards. Infected needles will be purplish. Severe defoliation occurs as the disease progresses.

Cytospora canker develops bluish-white pitching on infected branches. Fungal fruiting bodies appear. Rain, insects and birds spread fungal spores from branch to branch. No fungicide will help manage cytospora canker. Reduce stress on the trees and water, mulch and fertilize properly. Prune infected branches when they are dry. Disinfect pruning tools in rubbing alcohol or dilute bleach to prevent further infection.

Rhizosphaera also causes purplish needle discoloration and defoliation. This disease can be managed with fungicides such as Cleary's 3336. Early detection is important. Unlike cytospora, this disease produces no bluish white pitching on branches, but it produces small

fruiting bodies on needles which are visible.

It's possible that a given tree could have both cytospora and rhizosphaera needle cast diseases. It might be wise for you to send samples of the suspected diseases to a diagnostic lab in your area before treating. Meanwhile, continue to provide proper watering, mulching and fertilizing.

Dealing with warm-season disease

How can I control disease and fungi in south Florida, when the climate is adverse (such as mid-summer), and how will this affect the turf?

—FLORIDA

Success in disease management depends on several factors: correct identification, proper timing for treatment and proper materials. Of course, you cannot select the proper material until you have correctly identified the disease. Your local cooperative extension service or private companies and consultants should be able to help you with that.

If the turfgrass areas have had a history of certain serious diseases, treating those areas on a preventive basis may be beneficial. Most disease can be managed if the problem is detected early in disease development and properly treated. If the disease has progressed too far and is too late to manage, fungicide treatments may not be practical or beneficial. Overseeding or renovation may be necessary.

Along with fungicide treatments, it is important that you identify contributing stress factors and correct them.

This is particularly true with diseases like dollar spot, pythium blight, melting out, brown patch, summer patch, necrotic ring spot, and fusarium blight to name a few.

As far as your question of how will this affect the turf, it depends upon how well the overall disease management has been implemented. Fungicides should be used at the proper time, which in turn depends upon the specific disease activity. The disease-causing agents often establish on stressed and weakened plants.

Therefore, along with fungicide treatments, it is important to identify the contributing stress factor(s) and correct them. Provide good cultural management to improve plant health. Provide a good fertility program with proper amounts of potassium to improve stress/disease tolerance. For most diseases, multiple applications of fungicides are necessary at specific intervals. **LM**



BALAKRISHNA RAO
*Manager of Research and
 Technical Development
 for the Davey Tree Co.
 Kent, Ohio*

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Progress Report #96-5
National Turfgrass Evaluation

Variety Comparison	FALCON II	6.1	MB-21-92
Tomahawk	5.9		
Titan 2	5.7		
Rebel 3D	5.7		
Shenandoah	5.6		
Finelawn 88	5.6		
Anthem	4.9		

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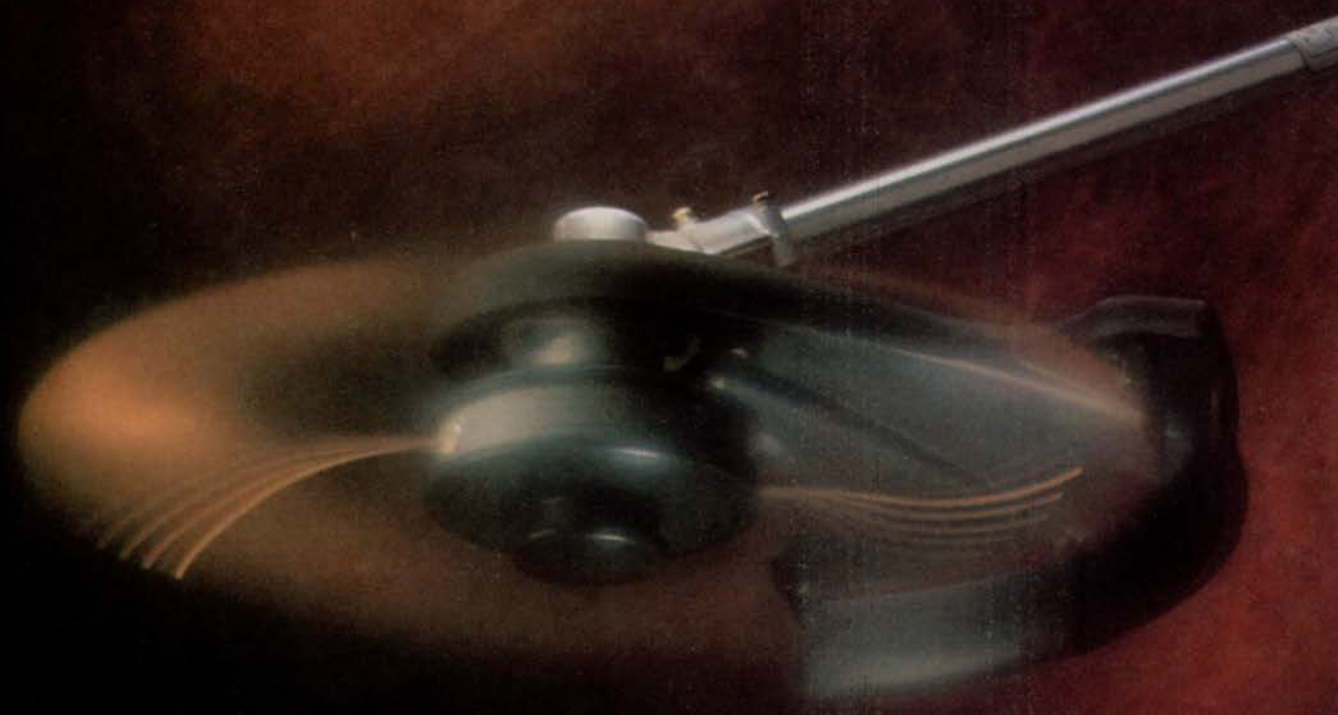
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The Pro Performance Team

Saying 'whoa' to plastic spikes

By RON HALL/ Managing Editor
ROLESVILLE, N.C.—Turfgrass breeder Dr. Joe Duich called for more study of alternative spikes on golf greens in light of the growing variety of alternative spikes. And the availability of new varieties of bentgrasses.

Duich said that some of these new creeping bentgrasses seem to resist spiking on greens—one of the biggest reasons for going "spikeless".

The turfgrass breeder spoke at the Turf-Seed, Inc., Field Day in Rolesville, NC, on June 26 concerning "the third generation of bentgrasses". Duich is a consultant with Tee-2-Green and was instrumental in developing, through the Penn State University breeding

program, new varieties like Penn A-1, Penn A-4, Penn A-6, Penn G-1, Penn G-2 and Penn G-6.

Duich said the new varieties offer better heat tolerance, and are finer textured and denser than previous bentgrasses. Duich recommended that the new varieties be mowed closer than say, Penncross. For instance, the Number 2 Donald Ross Course at Pinehurst is mowing its new bentgrass greens at 105/1000ths, and a course with A-4 greens in Virginia Beach is down to 110/1000ths, said Duich.

But it's the fact that they have a "very upright" growth habit that seems to cause them to resist spiking.

"The superintendents that are using them are stating that they're not seeing very much spiking on their greens," said Duich.

Tom Prewitt, manager of Cypress Lakes Golf Club, Hope Mills, NC, who was also at the Field Day, said he planted one green with A-4 in 1993, eight more greens in 1994 and the final 10 greens with A-4 in 1995. He said the new bentgrass greens are holding up well, even in North Carolina's summer heat.

"Spike marks are nonexistent," added Prewitt. "We can't force people to go spikeless. I don't know that spikeless is the answer anyway, especially on a public golf course. We're just not seeing spike marks" He said Cypress Lakes is a public course near Fayetteville, NC, and will probably get about 38,000 rounds this year.

Meanwhile, the Golf Course Superintendents Association of America (GCSAA) just released its survey of members concerning alternative spikes. The survey was conducted at the 1997 GCSAA in Las Vegas.

About 94 percent of the superintendents supported the use of alternative spikes, and indicated that within two years nearly half of all courses will ban metal spikes.

The movement is already underway at private courses where 45 percent of respondents claimed to have an alternative spikes policy. Only 13 percent of other respondents (from daily fee, municipal and resort facilities) reported requiring alternative spikes. Municipal and public courses are moving more cautiously, partly because of liability concerns.

While the spiking of greens is the primary impetus behind the move away from metal spikes, there are other issues. For instance, turf equipment mechanics say that lost metal spikes often end up on greens and damage their costly and finely calibrated mowers. □



Tom Prewitt, manager Cypress Lakes GC, Hope Mills, NC, and Dr. Joe Duich, right, say new bentgrasses seem to resist "spiking".

TG-CL gets Orkin LC

Downers Grove, Ill.—TruGreen-ChemLawn purchased Orkin's Plantscaping and Lawn Care divisions on July 24. TruGreen-ChemLawn is a subsidiary of ServiceMaster.

"We are excited about this acquisition, which represents a meaningful expansion of our largest and most profitable business unit," said ServiceMaster President and CEO Carlos Cantu. "It increases our market penetration in lawn care and plantscaping through the addition of 65,000 new customers. The acquisition...significantly enhances our competitive position in that business by nearly doubling our size."

TruGreen-ChemLawn is the leading lawn and landscape service company in the U.S., with more than 3 million customers and 324 service centers.

Turf students study issues; degree program starts

Racine, Wisc. — More than 30 turf students from colleges and universities across the U.S. and Canada spent five days at the Jacobsen Future Turf Managers Seminar in May.

The three-day event included presentation and panel discussions dealing with current and future issues of importance to golf course superintendents. A tour of Meadowbrook Country Club with superintendent Ric Lange, CGCS and Racine Country Club, managed by Mike Handrich, CGCS was included. Students also toured the Jacobsen facility.

Speakers included Joe Hahn, CGCS, Country Club of Rochester, NY,

Chip Toma, NFL Fields Supervisor, and Bob Vavrek, USGA agronomist.

"The seminar is right on target," says David Clanton, a senior at Clemson University. "It gives you a view of what the real world is all about."

Jason Blacka, a student from Australia who competed at state and national levels to be named Australian Turf Graduate of the Year, says, "We're in a very special profession.

Learning to interact with a variety of people is important."

Jacobsen Textron has also begun sponsorship of the turf



Top turf students check out equipment during the Jacobsen seminar. The company's new Associate Degree Program includes curriculum in hydraulics, electrical systems and engine principles.

industry's first two-year Associate Degree Program for turf equipment technicians. The program will be offered at

Texas State Technical College in Waco. The program includes a curriculum focused on a solid understanding of hydraulics, electrical and engine principles and practical, hands-on learning.

The company chose Texas State for its strong mechanics' program and active advisory committee for golf and turf-grass studies, according to Tony Saiia, Jacobsen vice president of customer service and product support.

"The school has excellent training labs," says Saiia, "as well as several holes of golf which provide perfect 'real life' areas for learning about turf equipment." □

Lawsuit pending over mower design

Wright Manufacturing, Inc., Gaithersburg, Md., has filed suit for patent infringement against Great Dane Power Equipment, Inc., of Florida and Huncilman, Inc. of Indiana, saying the Wright company owns the "stand-on" mower design. The Great Dane company recently released a new mower that uses a platform-type design. Company president Dane Scag, however, defends his use of the design.

Wright says it applied for a patent on the design on

December 16, 1994, and received a patent on April 16, 1996. In a statement issued July 15, 1997, Great Dane claimed its patent application was made in August, 1994, and that the company had received "notification of issue" for a patent for a platform type, zero radius turn lawn mower on July 15, 1997. The inventor, Joseph Berrios, assigned exclusive rights to Great Dane Power Equipment, says Great Dane.

President William R. Wright says two U.S. patents cover his lawn mower design. Great Dane replies that its "Zero Turn Surfer" mower is not an infringement.

"Reducing the invention to a successful operating machine is an important requirement for substantiating validity of a patent," according to Great Dane President, Dane Scag, who said production of the Surfer mower will increase this fall. □

CLCA seeks sanity in leaf blower issue

LOS ANGELES—The law banning gasoline-powered leaf blowers became effective July 1 in the City of Los Angeles. Although violators could be subject to a \$1,000 fine and six months in jail, strict enforcement isn't expected. In fact, city council likely will grant a one year grace period. This, says the council, will give the green industry time enough to reduce noise and pollution problems associated with leaf blower use.

"It appears that a committee within the substructure of the Los Angeles City Council is recommending and pushing very diligently for immediate delay on the current ordinance (against leaf blowers)," says Robin Pendergrast of International Marketing Exchange, representing the Echo company.

Pendergrast says the police dispatch 911 center has been "inundated" with a variety of callers requesting interpretation of the ordinance and police responses.

Meanwhile, the California Landscape Contractors Association (CLCA) says the green industry can partner with cities

and municipalities to reduce and, in many cases, eliminate complaints arising from the use of gas-powered leaf blowers.

Here are some of CLCA's recommended solutions:

- ▶ Running blowers at half speed to reduce noise and maintain maximum control.
- ▶ Do not use in residential areas during unreasonable hours.
- ▶ The muffler, air intakes and air filters should be routinely checked and maintained.
- ▶ Implement "buy-back" programs to phase out noisier, less efficient and older technology equipment. Newer low dB models produce fewer emissions.
- ▶ Work with leaf blower manufacturers to inform consumers of decibel levels prior to the purchase.
- ▶ Passing city ordinances that require proper use of leaf blowers.
- ▶ Passing city ordinances that prohibit outmoded or exceptionally noisy equipment—within reasonable standards.

The use of electric-powered leaf blowers is not an acceptable substitute. Landscape professionals estimate a 50 percent reduction in efficiency and increased hazards of using electric blowers near pools, spas, ponds or irrigation systems.

CLCA maintains that gas-powered leaf blowers save both labor and money over other methods of debris removal such as using a broom or hosing with water which, of course, is unreasonable in drought-prone California. CLCA members estimate their costs (and therefore their charges) would increase from 20 to 40 percent if they must perform the same functions without the leaf blower.

To receive a copy of CLCA's Position on Leaf Blowers document, contact CLCA at 916/448-2522. □

New drainage keeps Duke up-to-date

Durham, N.C.— Duke University has installed a \$200,000 drainage system at Wallace Wade Stadium Field, replacing a nearly 70 year-old grid.

The field meets United States Golf Association standards for drainage, and has put an end to years of sloppy, muddy footing. Project consultant Ross Fowler, who has guided football field construction for The Univer-

sity of North Carolina and has monitored other athletic field projects, says the pipe used has a slick inner surface, "so it allows for faster drainage; it gets the water off the field quicker."

Pipe was supplied by the Mebane plant of Hancor, Inc., Findlay, Ohio.

The project will be the first time the 68-year-old field tile drainage system has been replaced.

"As we removed 16 inches of soil, we found several playing surfaces over a clay loam base, and the tile below had a lot of breaks and clogs," says Darrin Waters, grounds supervisor for the Duke athletic fields.

Fowler designed a grid of four-inch diameter perforated pipe spaced at 20 foot intervals over the entire playing surface. Pipe slopes downward, and feeds into six-inch perforated pipe along the sidelines. A laser-controlled trencher ensured an even 1/2 percent fall.

The native soil was replaced with a gravel bed and a sand and peat mix.

"This field will drain almost a foot of water an hour," says Fowler. □



"Everything on the Duke field drainage project was local," says contractor Nolan Thomas. That includes the pipe, rocks, sand and crew.

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FOR PERMANENT TURF AND WINTER OVERSEEDING

Variety / Blend

Characteristics

Alliance Brand	Traffic, heat and drought tolerant / A blend of top quality Turf-Seed perennial ryegrasses
BrightStar II (2M3)	A top variety in the 1995 NTEP trials. A unique leafy, decumbent, late maturing cultivar
BrightStar	Tops 1994 NTEP ryegrass trials / Extremely dark color / Dwarf growth habit
Catalina	Low growth profile and reduced clippings / 78% endophyte / Tested as GH-94
Chaparral	Very dense, low-growing, dark green turf. Lowest vertical growth in turf. Tested as 2DLM
Charger	Good low fertility and cool weather performance / Improved disease resistance
Charger II	Dark, dense, dwarf turf ranks high in winter overseeding trials. Experimental code 2QM.
Citation III	Excellent heat and wear tolerance / Improved disease resistance / Rich, dark green color
Manhattan 3	Very dense growth habit / Rich color / Good mowing qualities / Contains endophyte
Navajo	Dark green, disease resistant turf / Excellent for overseeding / Good shade tolerance
Quickstart	Heat tolerant / Establishes quickly / Disease resistant / Excellent for overseeding
Roadrunner (2ET)	Dark blue-green color ideal for winter overseeding and permanent turf / Contains endophyte
Sunrye (246)	Dark green color / Dwarf growth habit / Contains endophyte / Disease resistant

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Our varieties and blends typically produce:

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- Quick-to-establish, dense tillered turf with improved mowing qualities
- Excellent turfgrass ratings in NTEP Trials, plus California, Arizona, and North Carolina overseeding trials
- Most contain high levels of endophyte for natural above-ground feeding insect resistance

Establishment

Turf-Seed perennial ryegrasses establish quickly in bare soil and will germinate in six days with

SEEDING RATES FOR PERMANENT TURF

Athletic fields, playgrounds	8-10 lbs./1000 sq. ft.
Golf course fairways, roughs, and cart paths	8-10 lbs./1000 sq. ft.
Parks, trailer courts, and camp areas	8-10 lbs./1000 sq. ft.
Low maintenance areas	3-5 lbs./1000 sq. ft.

WINTER OVERSEEDING RATES

Greens	30-40 lbs./1000 sq. ft.
Tees	20-30 lbs./1000 sq. ft.
Fairways	500-700 lbs./acre
Roughs	450-600 lbs./acre
Athletic fields, playgrounds	10-15 lbs./1000 sq. ft.
Home lawns, parks, civic areas	8-10 lbs./1000 sq. ft.

favorable conditions. Dark color and a height of 2 to 3" can be expected in two weeks, with the first mowing at about 21 days. Limited use can be expected in 30 days. Our advanced varieties can be mowed at 1/4" and less for Winter overseeding greens and tees in the South.

Our perennial ryegrasses perform exceptionally well as a monostand, and when mixed 1/3, 1/3, 1/3 with Turf-Seed's Kentucky bluegrass and fine fescues for year-round home lawns, parks, and other shady areas subject to wear and cold. Seed this mixture at 5 lbs. per 1,000 sq. ft., or 400 lbs. per acre. Keep seeds moist until seedlings emerge in 21 days.

Fertilization rate

Due to the naturally dark-green color of Turf-Seed ryegrass varieties and blends, they should require less fertilizer than is customary. Three to 6 lbs. of nitrogen per 1000 sq. ft. per season should be adequate.

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Turf-Seed ryegrass blue tags earn cash for turfgrass research. Hundreds of thousands of dollars have been contributed to university research and scholarship programs as well as turfgrass councils in the purchaser's name. Call Turf-Seed, Inc., or ask your seed dealer for details.

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Ed Gajewski joins **American Cyanamid** as business director, marketing services for the Specialty Products Department. Kit Rowe is territory manager in the midwestern U.S. for the company's Turf and Ornamental Products Group and Pest Control Products Group. His territory includes Indiana, Ohio, Michigan, western Pennsylvania and Kentucky.

Cargill, Inc. Fertilizer Products Division of Elk River, Minn., selected Grigg Brothers Bio Turf Gro Products, Naples, Fla. as sales agents for Cargill "Synergy" for turf and ornamental products in the U.S. (excluding Fla., Ga., S.C.) "Synergy is an energy-based fertilizer product developed and patented for use in turf, ornamentals and agriculture," says Bob Hess, worldwide product manager.

Superintendent Gary T. Grigg, CGCS at Royal Poinciana Golf Club, Naples, Fla., is vice president of Grigg Brothers.

The **John Deere** Worldwide Commercial & Consumer Equipment Division received the 1997 Bronze International Design Excellence Award for the design of the Gator Diesel utility vehicle. presented by the International Design Society of America and sponsored by Business Week magazine. The 6x4 Gator has a new design that features a diesel engine and a Continuously Variable Transmission.

Encore Manufacturing Co. named Doug Tegtmeier national sales manager. He will oversee distribution and dealer networks that carry both the residential and commercial mower lines.

Howard Johnson's Enterprises named Tom Skinner a regional account manager in the Midwest. He previously served Vicksburg Chemical as Midwest sales manager.

Husqvarna Forest & Garden Co. redefined its sales force as customer business development managers. David Zerfoss, president, says a feature is "Collaborative Selling," a specialized comprehensive educational program Husqvarna provides for its customer business development managers. The company now surveys its power retailers each month to assess their satisfaction and success with the customer business development managers and overall company service.

International Seeds, Inc. celebrates its 25th anniversary as

a turfgrass/forage seed producer. Events held to mark the milestone included a banquet/golf outing at Creekside Golf Course in Salem, Ore. "We were particularly pleased to see the number of guests that came from other parts of the country and even Europe to be present during this milestone event," says President Rich Underwood.

Kenneth J. Kossin, Jr. is the new controller at **Lesco**, and Susan F. Novak is the Cleveland-based company's manager of investor communications. Kossin has been with the turf product maker since 1989. Novak joined in August of last year, with experience in venture capital.

The Toro Company will open a new training facility this fall at which seminars and courses on technical and product training; engineering; customer service; and new products will be held. Participants will include Toro commercial market customers, distributors, service technicians, technical sales personnel and Toro employees from across the globe. The 5,800-sq.-ft. facility, comprised of two classrooms, four service bays with lifts, tool storage, and the latest in video-conferencing and audio-visual capabilities, is located at the company's headquarters in Bloomington, MN. For more information on the Toro Training Center, courses and availability, contact Rich Smith, service training manager at The Toro Company, 612/887-8116. **LM**

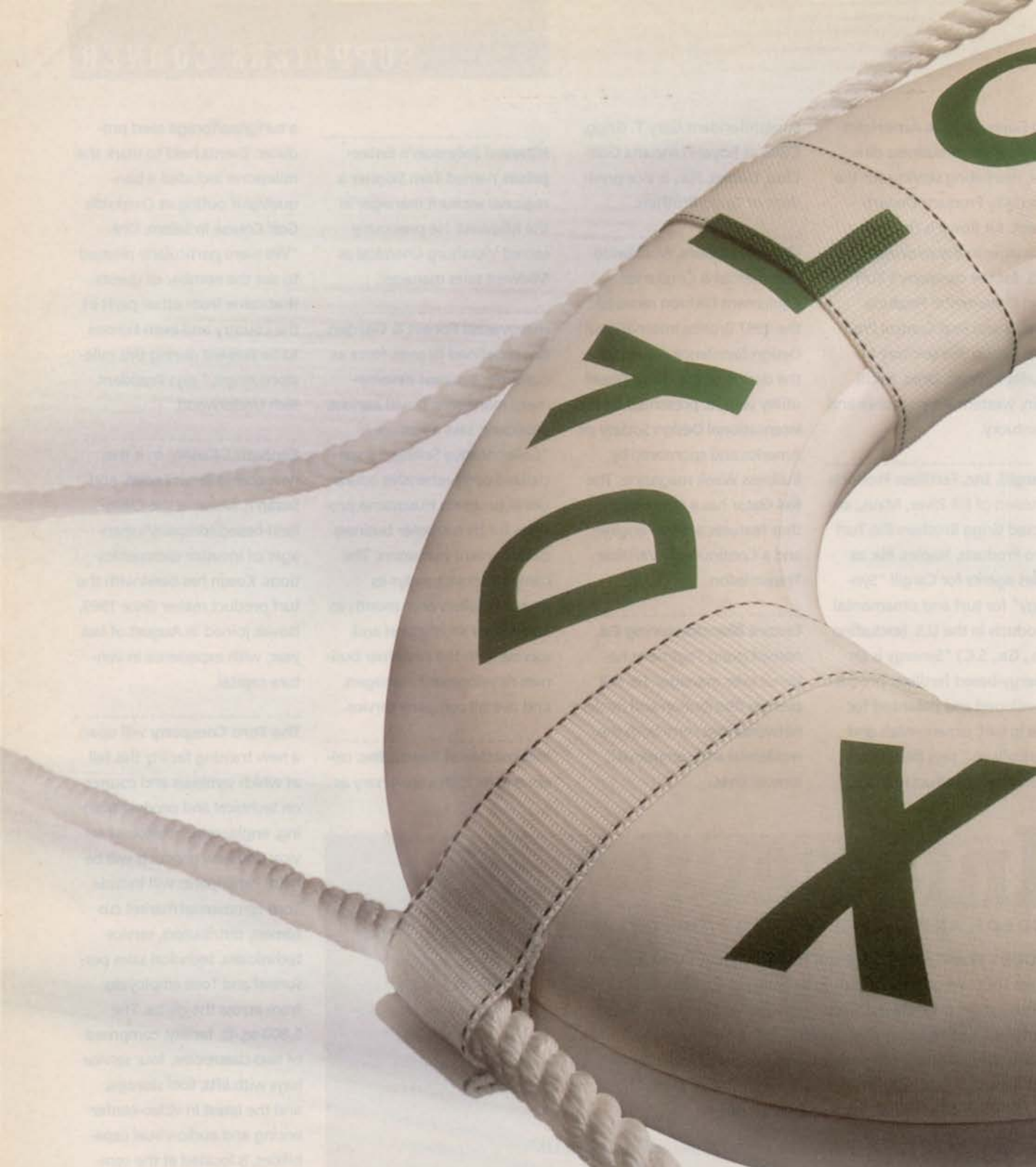
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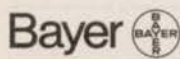
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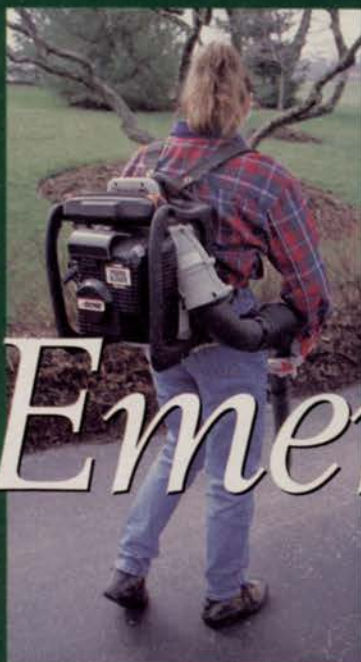


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1997 Emerald

Clockwise from top left: Kubota B-Series compact tractor 'runs and runs,' says contest winner; Echo PB46LN for 'low noise' leaf blower work; Ford trucks repeat as a favorite work-horse vehicle; Stihl chain saws a favorite; Toro walk-behind mowers win big; DowElanco's Team/Team Pro; Echo SRM 3100 trimmer; Ryan aerator a run-away winner.





Awards



Big wins by Echo, Ryan, Toro and Kubota, as LM contestants tell us the products they like best!

The 1997 Emerald Awards—our contest in which participating LM subscribers write in to tell us which products are their favorites—showed strong interest in some of the leading brands of mowers, aerators, trimmers, leaf blowers and control products.

Do these products likely require more of a dollar investment? Probably; which tells you that cutting corners with equipment is not a strategy of green industry professionals.

Team, a preemergent weed control product from DowElanco, scored first in that category,

“What people like best about Team and Team Pro is that both offer the most proven, effective, preemergent control of grassy weeds including crabgrass, goosegrass and annual bluegrass (*poa annua*),” says Gary Denhart, DowElanco business manager for Turf, Ornamental and Technical Products.

“Team has been on the market for more than 12 years and remains the best value in comparison to competitive products. It is the only widely used crabgrass preventer with two active ingredients—which leads to its consistent performance—but it is the combination of efficacy and value that repeatedly earns customer loyalty.”

Echo took top votes in two categories; line trimmers and leaf blowers. In the leaf blower market, the company’s PB-46LN is state-of-the-art, designed to generate only 65 decibels at full throttle at 50 feet.

“This new blower promised to give professional users across the country what they’ve been waiting for,” says Bill Peel, Echo director of marketing.

The company’s new trimmer/brushcutter for the professional market is the SRM3100, which features a Pro-Fire Electronic Ignition for easy starts, and a trimmer head for 50 feet of line.

“It’s a great honor whenever any of the trade magazines recognize the manufacturer,” says Brian Masterson, marketing manager for Toro’s landscape contractor group.

“It’s great when it comes from a landscape contractor, because our whole organization is really designed to address the needs of the landscape contractor.”

Kubota won in the compact tractor category.

“Kubota products’ reputation for high quality, durability and value are key elements in the popularity of Kubota among landscapers and golf course superintendents,” says Paul Williams, product manager for tractors and implements. Dan Kilgas, of the residential and commercial mowing products line, says the tractors, “are user-friendly and offer exceptional versatility by allowing the use of a wide variety of performance-matched implements.” □

Grand prize winner knows value of hard work

First prize in our Emerald Awards drawing goes to **Levi Martinez**, owner of Levi's Landscapes & Spas, Los Alamos, N.M.



He receives a check for \$500.

Martinez has been in the business for 21 years. Levi's services include landscaping, lawn maintenance (mowing, thatching, aerating) and some landscape design. Annual sales are around \$300,000, but Martinez, 61, says he would like to sell the business sometime soon and enjoy retirement.

His accounts include the grounds around the Los Alamos National Laboratory; local grocery stores and banks; the Bectel Company; and many residential customers.

"I'm still working hard," he says. "I get in there right alongside my men."

The secret to Martinez' success is no secret at all: "Ensure that the customer is getting a good deal," he says.

Levi's equipment choices: **Kubota** B7200 compact tractor. "It's excellent. It runs and runs, like the Energizer bunny. You can't hurt it!"

Dodge crew cab pick-ups; **Dodge** dump truck; **Ford** diesel truck.

McCullough; Stihl; Husqvarna chain saws

Encore Pro36 walk-behind mower. "It's small enough to get through gates in yards, and it turns on a dime."

Second prize of \$300 goes to **Stefan Miller**, Visual Lawn, Montague, Mass.

Miller's small company em-



loys two full-time and six seasonal workers. Services include mowing, mulching, tree removal and residential and commercial snow plowing.

"I enjoy being able to run my own business," says Miller. The rewards of seeing something done right. Stepping back and

seeing the finished product...seeing yourself do it. I've tried working for other people here and there, and it's not the same."

Miller's equipment choices: **Scag** and **Toro** mowers; **John Deere** compact tractors; **Dodge** trucks; **Shindaiwa** trimmers.

Third place and \$200 goes to Doug Markovitz, 30, owner of The Landscapers, Palmyra, NJ. Markovitz has been in business for three years.

Doug's clientele is residential and commercial accounts. Services performed include mowing, maintenance and landscape installation.

Equipment: **Snapper** walk-behind mowers; **Scotts** fertilizer, insecticide, herbicide and growth regulators; **Ford** Ranger pick-up; **Echo** line trimmers. □

1997 EMERALD AWARD-WINNERS

Top scorers (only) in each category, listed as percentage of total votes

WALK-BEHIND MOWERS

Toro	24
Scag	13
John Deere	11
Jacobsen	6

RIDING MOWERS

Toro	21
John Deere	12
Walker	10
Scag	7

LINE TRIMMERS

Echo	33
Stihl	17
Shindaiwa	13
Red Max	4

LEAF BLOWERS

Echo	29
Stihl	9
Shindaiwa	6
Little Wonder	6

CHAIN SAWS

Stihl	48
Echo	12
Husqvarna	9
Poulan	6
McCullough	5

AERATORS

Ryan	50
Lesco	3
Blue Bird	3
Don't use	18

PICK-UP TRUCKS

Ford	35
Chevrolet	31
Dodge	12
GMC	7

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PRE-EMERGENCE HERB.

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Bayleton	7
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PLANT GROWTH REGS.

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BLUEGRASSES

Lesco	4
Touchdown	4
Midnight	3
Lofts	3
Park	2

RYEGRASSES

Manhattan (&I)	8
Palmer (& II)	5
Lesco	7
Lofts	5
Palmer (&I)	4

TALL FESCUES

Rebel*	7
Lesco	3
K-31	3
Lofts	3
*Rebel includes original Rebel, Rebel Jr., Rebel 3-D, Rebel II	



Line up fine fescue early

Book your fine fescue turfseed order now. "There will be shortages due to reduced acreage and increased demand," says Bill Dunn, **Zajac Performance Seeds**.

"A large reduction in acres over the past several years and lack of seed available to import from Europe make supplies extremely short and prices high," reports **Turf Merchants, Inc.**

Fine fescue acres in Oregon have been decreasing since 1994, adds Tom Stanley, marketing manager of **Turf-Seed Inc.**, who advises to "book your fine fescues early; the quantities

"Acreage has been getting in line with demand this year. The last couple of years, acres were down, seed supplies tight and prices fairly strong."

—Tom Stanley, Turf-Seed, Inc.

just aren't going to be there."

"The situation is confusing," says Dr. Jerry Pepin of **Pickseed West**. "I can't figure out exactly what went wrong. Rain during pollination, heat at the wrong time, some little thing went wrong enough to cause this stuff to come in light."

Adds Scott R. Harer, Ad-

vanta Seeds West, Inc.: "new acres were difficult to place due to alternative crops. Supplies will be very tight for the next year or two."

Other varieties of turfseed should be in either adequate-to-good supplies.

Bill Young of **Oregon State University** reported that in 1996 Oregon farmers increased turfseed production by 4,721 acres. More acres were devoted to perennial ryegrass seed production than any other, about 135,300 acres, with 125,800 acres producing annual ryegrass seed. Oregon farmers produced 85,710 acres of tall fescue.

After that, acreage falls off for other Oregon-grown varieties.

While yields for this year's turf-type tall fescue crop are being described as "average," acreage is up about 10 percent.

"Acreage has been getting in line with demand this year," says Turf-Seed's Tom Stanley. "The last couple of years, acres were down, seed supplies tight and prices fairly strong."

Advanta's Scott Harer predicts "stable" prices for turf-type tall fescue seed as the industry continues to increase production to meet demand. He sees some decrease in price but inventories will continue to remain short.

Zenon Lis of **Burlingham Seeds** says there is no carryover of turf-type tall fescue seed, and

KEY (AVAILABILITY):

A=expected surplus; B=adequate supply; C=limited supply.

KEY (PRICE):

H=higher prices than last season; S=stable prices, generally the same as last season; L=lower prices than last season.

CULTIVAR	MARKETER	AVAILABILITY	PRICE
<i>Kentucky Bluegrass</i>			
1757	Lofts Great West. Seed	B	H
Abbey	The Scotts Co.	C	S
Adelphi	Advanta/Ampac	B	S
Alpine	Pickseed West	B	S
America	Pickseed West	B	S
Ascot	The Scotts Co.	C	S
Award	Jacklin	B	S
Banjo	International Seed	C	L
Barcelona	Barenbrug USA	B	S
Bartitia	Barenbrug USA	B	S
Blacksburg	Turf-Seed	B	S
Bluechip	Medialist America	B	S
Buckingham	The Scotts Co.	B	S
Caliber	Peterson	C	S
Cannon	Advanta	B	L
Chateau	Fine Lawn Research	C	L
Classic	Peterson	C	S
Dawn	Lesco	B	S
Dragon	Zajac Performance	C	L
Eagleton	Lofts	B	S
Fortuna	International Seeds	C	S
Geronimo	Advanta	A	L
Gnome	Turf Merchants	A	L
Haga	Burlingham	B	S
Liberty	Zajac Performance	B	S
Limousine	Roberts	B	S
Midnight	Turf-Seed	B	S
NuGlade	Jacklin/Medalist America	B	S
Opal	Burlingham	B	S
P105	Lofts	B	S
Quantum Leap	Roberts	B	S
Rugby	Roberts	B	S
Rugby II	Medalist America	B	S
Shamrock	Lesco	B	S
SR 2000	Seed Research	C	S
SR 2100	Seed Research	B	S
SR 2109	Seed Research	C	S
Touchdown	Pickseed West	C	H
Unique	Turf-Seed	B	S
Wildwood	Lesco	B	S
<i>Perennial Ryegrass</i>			
Accent	Medalist America	B	S

CULTIVAR	MARKETER	AVAILABILITY	PRICE
Achiever	The Scotts Co.	B	S
Advantage	Lesco	B	S
Advent	Jacklin	B	S
All*Star	Advanta	C	L
APM	Medalist America	B	S
Blazer II	Pickseed West	C	S
Brightstar	Turf-Seed	B	H
Calypso II	Roberts	B	S
Catalina	Turf-Seed	B	H
Cutter	Pickseed West	B	S
Delaware Dwarf	Ampac	B	L
Derby Supreme	International Seeds	B	L
Dimension	Advanta	C	L
Divine	The Scotts Co.	B	S
Edge	Pickseed West	B	S
Excel	Burlingham	B	S
Fiesta II	Pickseed West	B	S
Gator	International Seeds	B	L
Greenland	Barenbrug USA	B	L
Headstart	Roberts	B	S
Legacy	Lesco	B	S
Line Drive	Lesco	B	S
Majesty	The Scotts Co.	B	S
Nobility	Ampac	B	L
Palmer II	Lofts	B	H
Palmer III	Lofts	C	H
Pennant II	Burlingham	B	S
Prelude	Lofts	C	H
Pinnacle	Barenbrug USA	B	L
Precision	Advanta	C	L
Premier II	Barenbrug USA	B	L
Prizm	Zajac Performance	B	L
Riviera II	Roberts	C	S
SR 4010	Seed Research	B	H
SR 4100	Seed Research	B	H
SR 4200	Seed Research	B	H
Stallion Select	Fine Lawn Research	B	S
Stallion Supreme	Fine Lawn Research	A	H
Target	Medalist America	B	S
Wizard	Burlingham	B	S

Turf-Type Tall Fescue

Adobe	The Scotts Co	B	S
Amigo	Medalist America	B	S
Apache II	Turf-Seed	B	S
Arid	Medalist America	B	S
Aztec	The Scotts Co.	B	S
Bartexas	Barenbrug USA	B	L
Bravo	Lesco	B	S
Chieftain II	Roberts	C	S
Coyote	Zajac Performance	B	L
Cochise	Ampac	C	L
Cortez	Ampac	C	L
Crossfire II	Pickseed West	B	L
Falcon II	Burlingham	B	L
Finelawn Petite	Fine Lawn Research	A	L

CULTIVAR	MARKETER	AVAILABILITY	PRICE
Finelawn 88	Fine Lawn Research	B	L
Finelawn 5GL	Fine Lawn Research	B	L
Gazelle	Zajac Performance	C	H
Guardian	Roberts	B	S
Jaguar 3	Zajac Performance	B	L
Hounddog 5	International Seeds	B	L
Lancer	Lesco	B	S
Leprechaun	Roberts	B	S
Mirage	The Scotts Co.	B	S
Mustang II	Pickseed West	B	L
Ninja	Ampac	C	L
Phoenix	Barenbrug USA	B	L
Pleasure	Ampac	B	L
Pixie E	Medalist America	B	S
Pride	International Seeds	B	L
Rebel III	Lofts	B	L
Rebel Jr.	Lofts	B	L
Rebel 3D	Lofts	B	L
Regiment	Advanta	C	L
Renegade II	Burlingham	B	L
Safari	Turf-Seed	B	S
Shortstop II	Pickseed West	B	L
SR 8200	Seed Research	B	S
SR 8210	Seed Research	B	S
SR 8300	Seed Research	B	S
Stetson	Lesco	B	S
Tomahawk	Turf-Seed	B	S
Top Hat	International Seeds	C	L
Tulsa	Advanta	C	L
Vegas	Barenbrug USA	B	L

Fine Fescues

Aruba creeping red	Medalist America	B	S
Bardur hard	Barenbrug USA	C	H
Barok sheep	Barenbrug USA	C	S
Bridgeport chew'gs	Barenbrug USA	C	S
Brigade hard	The Scotts Co.	C	S
Brittany chewings	Lesco	B	S
Capitol chewings	Ampac	C	S
Cindy red	International Seeds	B	L
Claudia creeping	Ampac	C	S
Dawson	Advanta	C	H
Defiance hard	Lesco	B	S
Discovery hard	Turf-Seed	C	H
Enjoy chewings	International Seeds	C	S
Eureka hard	Fine Lawn Research	C	H
Flyer creeping red	Fine Lawn Research	B	H
Jasper creeping red	Pickseed West	B	H
Jamestown II	Lofts	C	S
K-2 chewings	Burlingham	C	H
Longfellow chewings	International Seeds	B	S
Molinda chewings	The Scotts Co.	C	S
MX-86 sheeps	Jacklin	C	S
Nordic hard	Zajac Performance/Ampac	C	H/S
Raymond	Advanta	B	H
Reliant II hard	Lofts	C	H



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PERFECTING TURFGRASS PERFORMANCE



Product Focus:

TMI sources from private breeding programs the latest in improved turfgrass seeds. Our major focus is on improved turfgrasses for the professional markets of golf, landscaping and landscape architecture. These include creeping bentgrasses, turf-type tall fescues, perennial ryegrasses, and Kentucky bluegrasses. TMI also offers domestically-produced warm-season grasses such as bermudagrass and zoysiagrass. From its own conventional breeding program, to university sources such as Rutgers University and Texas A&M, TMI is looking forward to offering the latest technologically advanced varieties available anywhere.

Manufacturing Facilities:

Turf Merchants, Inc. is located in the heart of Oregon: southern Willamette Valley, where over 65 percent of the world's supply of grass seed is grown.

Natural rainfall and expertise in production make the quality of Oregon grass seed the best in the world. TMI operates from three satellite warehouses located strategically around the valley with points north, south and west. This makes customer response an industry standard, with promptness and accuracy in shipments that are unparalleled. TMI has the ability to blend, process and ship simultaneously from any of these locations where over 30 million pounds of seed are processed each year.

Tech Support / Training:

TMI has a variety of technical support through extensive trial systems, product literature and data bases. Results from turf trials in dozens of locations make the process of selling a simplified matter when comparative data is essential. Color slides of the production process and research add an additional dimension to the support available.

Major Product Lines:

Turf-type perennial ryegrasses including Affinity, Manhattan 3, Rodeo II, Allaire II, Patriot II, Evening Shade, Nomad (spreading type), Pennfine II, and VIP II.

Turf-type tall fescues include Bonsai 3, Twilight II, Taurus, Turf Gem II, Adventure II, Micro, Earthsave, Avanti II.

Kentucky bluegrasses are Gnome, Cobalt, Sodnet, Rugby, Viva and Trueblue.

Creeping bentgrasses are Backspin and Trueline.

Zen zoysiagrass and Del Sol bermudagrass round out the warm-season lines.

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• Robin Mankle, secretary/ treasurer

cont. from page 28

he sees a pricing decline due to lower K-31 tall fescue prices.

"The large crop of Kentucky-31 and increased acres of turf types will keep prices off last season's record," says Turf Merchants Inc.

"The tall fescues are coming

There should be adequate supplies of Kentucky bluegrass, including sod-quality seed. Prices should be stable.

in lighter than expected. Common bluegrasses are also coming in lighter than expected," says Pepin. "There will still be plenty of seed, but there won't be an excess."

While most suppliers are reporting an "average" crop for perennial ryegrass, almost all agree that demand for perennial ryegrass will continue strong.

The opening of about 300 new golf courses in the United States again this year, and continued strength in the home building market drive demand for perennial ryegrass.

"Lots of acres were planted but early seed yields are below projections. An overall good availability is expected," adds Pepin.

Keith Laxton, vice president of operations, Seed Research of Oregon, Inc.: "We had some really unseasonably hot weather back around spring vacation time. It was a couple weeks of 85-90 degree weather, and it tended to push things along a little quicker

than we would have liked to see. As a general rule, the quicker things ripen, the lighter they tend to be.

"Since then we've been into a pretty normal weather pattern, and we're well into harvest now," says Laxton.

"The tall and fine fescues are now being harvested. We're just now beginning to get into ryegrass. We don't have enough actual weights in hand to give real accurate yield predictions, but I would say the

tall fescue is coming in as a good, average crop, maybe a little heavier than average. And in just a few tests we've seen so far, the quality seems fine."

"Some pretty hard rain shattered out some ryegrass seed," says Laxton. Across the Willamette Valley the ryegrass crop is more like an average or slightly below average crop."

There should be adequate supplies of Kentucky bluegrass this season, including sod-quality seed. Prices should be stable.

"Our Kentucky bluegrass yields look average," says Art Wick of Lesco. "They are not as high as last year. That was a bumper crop. This year they are about where we expected them to be."

On bentgrass supplies, Pepin says, there is generally a good availability of the newer, improved varieties, and much greater market acceptance of the newer types. **LM**

CULTIVAR	MARKETER	AVAILABILITY	PRICE
Rescue hard	Jacklin	C	S
Scaldis	Advanta	C	H
Shademark creeping red	Lesco	B	S
Shademaster II	Turf-Seed	C	H
Spartan hard	Pickseed West	C	H
SR 3100 hard	Seed Research	C	H
SR 3200 blue	Seed Research	B	H
SR 5100 chewings	Seed Research	B	H
Tiffany chewings	Turf-Seed	C	H
Treasure chewings	Zajac Performance	C	H
Valda hard	International Seeds	B	S
Victory chewings	Pickseed West	C	H
Victory II chewings	Medalist America	B	S
Vista creeping red	Zajac Performance	C	H
Warwick hard	Medalist America	B	S
<i>Bentgrass</i>			
Bardot colonial	Barenbrug USA	C	S
Cato	Pickseed West	B	S
Cobra	International Seeds	B	S
Crenshaw	Lofts	B	S
Golf Star	Medalist America	C	H
18th Green	Zajac Performance	B	L
L-93	Lofts	B	S
Lopez	Advanta/Fine Lawn	A/B	S
Mariner	Pickseed West	B	L
Penn G-2	Lesco	B	S
Penncross	Tee-2-Green	B	S
Penneagle	Tee-2-Green	B	S
Pennlinks	Tee-2-Green	B	S
Princeville	Lesco	B	S
ProCup	The Scotts Co.	B	S
Putter	Jacklin/Medalist America	B	S
Regent	Barenbrug USA	B	S
Southshore	Lofts	B	S
SR 1020	Seed Research	B	S
SR 1019	Seed Research	B	S
SR 1119	Seed Research	C	S
Tracenta	Advanta	C	H
Viper	International Seeds	B	S
<i>Other Seeded Cultivars</i>			
Barkoel prairie junegrass	Barenbrug USA	C	S
Jackpot	Jacklin	B	S
Mirage	International Seed	B	S
Primavera bermuda	Seeds West/Seed Res.	C	S
Savannah bermuda	Turf-Seed	C	S
Sonesta bermuda	The Scotts Co.	B	S
Southern Star	Medalist America	C	H
SR 6000 deschampsia	Seed Research	C	S
Sundevil II bermuda	Medalist America	B	S
Sunrise zoysia	Jacklin/Med.Am.	B	S
Sunstar bermuda	Lesco	B	S
Supina bluegrass	Fine Lawn Research	B	S
Zen zoysia	Turf Merchants/Fine Lawn	C	H



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SNOW EQUIPMENT

By CURT HARLER

So you ducked back into the shop to escape the late summer heat? To help you out, our Report this month is on snow blowers. A key piece of equipment for winter operation, the snow blower can be taken for granted by workers who are apt to take chances that they would not think about risking with a lawn mower.

"For most of us, operating a snow blower is not a day-to-day task," says Richard DePauw, snow blower safety expert for John Deere, Moline, IL. He says the biggest safety risk is trying

to clear the discharge chute without first turning off the machine. Newer machines have manufacturer-installed automatic shut off systems. "People try to bypass the system ... bad idea," DePauw says. "Never put your hands inside the chute or the auger. Use a stick instead. It's a lot safer," he states.

Before plowing or blowing snow, clear the area of objects like doormats or boards. If the job takes you around condos or office clusters, beware of newspapers buried under the snow ... shredded newspapers are a bear to extract from an impeller. Don't clear snow across steep slopes — and be doubly careful when changing direction on any slope.

Be aware of snow conditions. A snow blower will push right through the first light, fluffy snow of Fall in top gear without hesitation. However, speed will have to be vastly reduced if the snow is wet, or the operator will be frustrated with cleaning clogged chutes and frequent restarts. Along with operating speed, keep in mind the distance the snow is discharged.

Small stones along a walkway often will be hurled out the discharge chute. Pause for a moment if people are within the throw-radius of the unit. Windows also seem to act as magnets for stones or small pieces of wood which are thrown out the discharge chute. Deflectors should not be set to toss snow any farther than is necessary.



John Deere TR522 powered by 4-hp Tecumseh. Model 828 D has 8-hp engine and clears 28-inch path through the snow.



Attach a snowthrower to Grasshopper zero-radius power unit.

SNOW REMOVAL EQUIPMENT

BOBCAT
701-241-8700
Circle No. 250

Hook a Kwik-Way angle blade to your 500, 700, 800 or 900-series loader from Bobcat, Fargo, ND, to remove snow; use the heavy-duty version to doze or backfill dirt the rest of the year. Or, get the 1812 or 2418 hydraulic-drive rotary units. Special plastic lines the discharge chute to help prevent plugging in wet conditions. The 1812 is available in 61, 67 and 73-inch versions; the 2418 comes in 63, 73 or 85-

inch widths and can throw snow up to 50 feet when equipped with the high-flow option loader.

CUB CADET
216-273-4550
Circle No. 251

The newest from Cub Cadet is the 1333SE with power steering wheel drive which allows easy maneuvering. Simply engage one directional trigger and one side remains stationary while the other digs in to complete the turn. Powered by a 13-hp, 4-cycle OHV Regency engine, the 1333SE clears a 32-inch path. Features include push-button electric start, halogen headlight for early morning use, serrated augers

to dig into hard pack snow or ice, and a 6-inch freeze-resistant discharge chute that rotates 190 degrees to toss snow where you want it.

JOHN DEERE
888-669-7767
Circle No. 252

Your local Deere dealer offers a full line of stand-alone machines and attachments. The TRS22 two-stage snow blower, powered by a 4-hp Tecumseh engine, has a small frame for easy maneuvering. A 10-inch auger moves through hard-packed snow or ice and the 4-blade 9-inch impeller moves snow efficiently from the auger and out the chute. The 828D is a large-frame model with 8-hp engine. It clears a 28-inch path. Features a spiral auger with serrated cutting edges, embossed side panels to prevent flex, and differential lock for better traction. Tosses snow up to 35 feet.

DINGO DIGGING SYSTEMS
800-476-9673
Circle No. 253

Take the 1812Hyd snowblower, from Dingo Digging Systems, Fort Mill, SC, with you to tight spaces. With a 48-inch cutting width, the unit is perfect for sidewalks and other narrow areas. Its design eliminates metal-to-metal contact between the blower and rotating chute base, sealing out snow and freezing slush. Comes with 12-inch auger and 18-inch diameter fan. Discharge chute is hydraulically rotated and will cast snow 15 to 25 feet.

FAIR MANUFACTURING
605-387-2389
Circle No. 254

Full line of Snocrete Blowers is available from Fair Manufacturing, Menno, SD. Sizes range from 36-inch center spout models through 48, 60, 72, 84, 96 and 108-inch units with center or twin spouts. Modified-V cutting edge penetrates snow easily, while two large-diameter fans give maximum movement with a minimum of moving parts. Chopper bars prepare and gather ice or snow. Spouts rotate 360 degrees and tapered side wall protects against surface damage.

THE GRASSHOPPER COMPANY
316-345-8621
Circle No. 255

Mow through snow with the Snowthrower from Grasshopper,

Moundridge, KS. Attach a snowthrower to any Grasshopper zero-radius power unit for no-clog performance, even in deep, heavy or wet snow. Discharge spout rotates 180 degrees to throw snow up to 30 feet. Available in 48- and 60-inch models, snow throwers feature heavy-gauge welded steel construction. Optional winter enclosure with heater is available.

GRAVELY INTERNATIONAL
800-472-8359
Circle No. 256

Thirty-two-inch two-stage snow blower from Gravelly, Brillion, WI is constructed of reinforced, die-formed and welded steel. Unit has a 16-inch impeller fan that runs at 1179 rpm and a 16-inch auger operating at 112 rpm. Auger slip clutch protects the worm gear auger drive enclosed in a cast-iron housing. Auger drive and impeller fan are driven by tractor pto. Also available is a 48-inch SnowDozer blade, designed for front mounting. The 21-inch high curved blade pushes a 48-inch path, curling snow out of the way in tight areas.

GUEST INDUSTRIES
800-243-5390
Circle No. 257

Turn any bucket loader into a snow plow right without any special tools required. Torrington, CT-based Guest Industries has six models ranging from five-feet to 12-feet which attach in two to three minutes time. Clamps on the plow units require only manual tightening to the bucket. Pin locks prevent loosening. All models can be used straight or angled 30 degrees to either side. Units work with buckets ranging from 37 inches to 83 inches wide and fit bucket lips from one inch to 2.75 inches.

HONDA POWER EQUIPMENT
800-426-7701
Circle No. 258

The HS828 series of walk-behind snowblowers from Honda, Duluth, GA are powered by the Honda 8-hp OHV engine. Both the HS828K1WAS and the HS828K1TAS come with a standard 210-degree adjustable discharge chute. The WAS (wheel drive) and TAS (track drive) units clear a path 28 inches wide and can discharge snow up to 49 feet, de-



Honda Power Equipment

pending on snow conditions. The two units come standard with hydrostatic drive and electric start. Operator controls are easy to use.

HUSQVARNA
800-448-7543
Circle No. 259

Heavy-duty snowblowers with electric start from Husqvarna. The Charlotte, NC, firm offers the ST926EC with a 9-hp Tecumseh Snow-King engine and shift on-the-go drive, including four forward speeds and two reverse. It clears a 26-inch path. The larger ST1030EC has a 10-hp engine and clears a 30 inch path. Both allow single-hand operation and feature sealed bearing shaft supports and come with two year warranties. The ST624E is a 6-hp, self-propelled version with six forward and two reverse speeds. Large mitten-grip starter handle.

MTD PRODUCTS, INC.
800-800-7310

Circle No. 260

Refined features like the extra-large mitten-



Snapper, Inc.

size starter handle grip and extra-large gas cap make it easier working with the 5-hp Yard-Man from MTD Products, Cleveland, OH. Powered by a two-cycle engine, the single-stage E262 clears a 20-inch path. Handle folds down for off-season storage. The larger E9931 is a 13-hp snow thrower with 33-inch clearing width and a 16-inch impeller.

Rugged, cleated tracks provide top traction, balance and stability.

SNAPPER, INC.
770-914-4278
Circle No. 261

Latest from Snapper, McDonough, GA is the SX5200E, a single-stage snow blower with a 20-inch clearing width and a 230-degree rotating chute with adjustable arch control. Powered by a two-cylinder, 5-hp winterized engine from Tecumseh, it blows away 1,300 pounds per minute of snow. Rubber-lined auger clears right down to the pavement.

THOMAS EQUIPMENT, INC.
506-276-4511
Circle No. 262

A 2-stage, hydraulic drive snowblower is available to fit four models of the Thomas Equipment loaders, including the T133, T173HL, T203HD and the T233HD. The snowblower from the Centerville, New Brunswick, Canada firm is 60-inches wide and 23 high and features a 700 rpm auger with a diameter of 14.5 inches. The chute turns 210 degrees. The unit features Quick-Tach mounting and weighs about 475 pounds.

TRYNEX INTERNATIONAL
800-725-8377
Circle No. 263

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Mid-summer Blooms

Suggestions to keep annuals healthy and colorful throughout summer's hottest days and into the fall.

By H.S. STEVENS

Anuals can provide a full season of color but don't count on it unless you take all the right steps. By mid-summer, many gardeners are asking, "where have all the flowers gone?"

Even if you have planted locally adapted varieties, there are many factors throughout the season that can have a negative effect on flowering. Here are some of the most common problems.

1) **Too much water:** When excessive rainfall or over-watering saturates the soil, annuals that are not growing in well-drained beds will suffer. Plant roots require oxygen in order to take up moisture and nutrients. In saturated soil, all the pore spaces are filled with water and little or no oxygen is available. Heavy rains can also leach available nitrogen from the soil. The result is yellowing of the lower leaves, loss of vigor, poor flowering and the proliferation of root rot fungi such as pythium and phytophthora. Sudden changes, such as hot, dry weather following a cool, rainy period can also cause the loss of flower buds and result in poor flowering.

We can't control the weather, but we can prevent problems caused by excess moisture by watering on the basis of need rather than on a fixed schedule, by planting on raised beds in any area where

drainage is poor, and by adding large amounts of organic matter to clay soils.

2) **Too little water:** Lack of sufficient moisture is the most limiting factor in summer gardening. During hot, dry weather, a large percentage of the water taken up by plant roots is lost by transpiration through the leaves.

Broadleaf plants may lose moisture faster than the roots can furnish it. This can cause wilting on a hot afternoon even when ample moisture is present.



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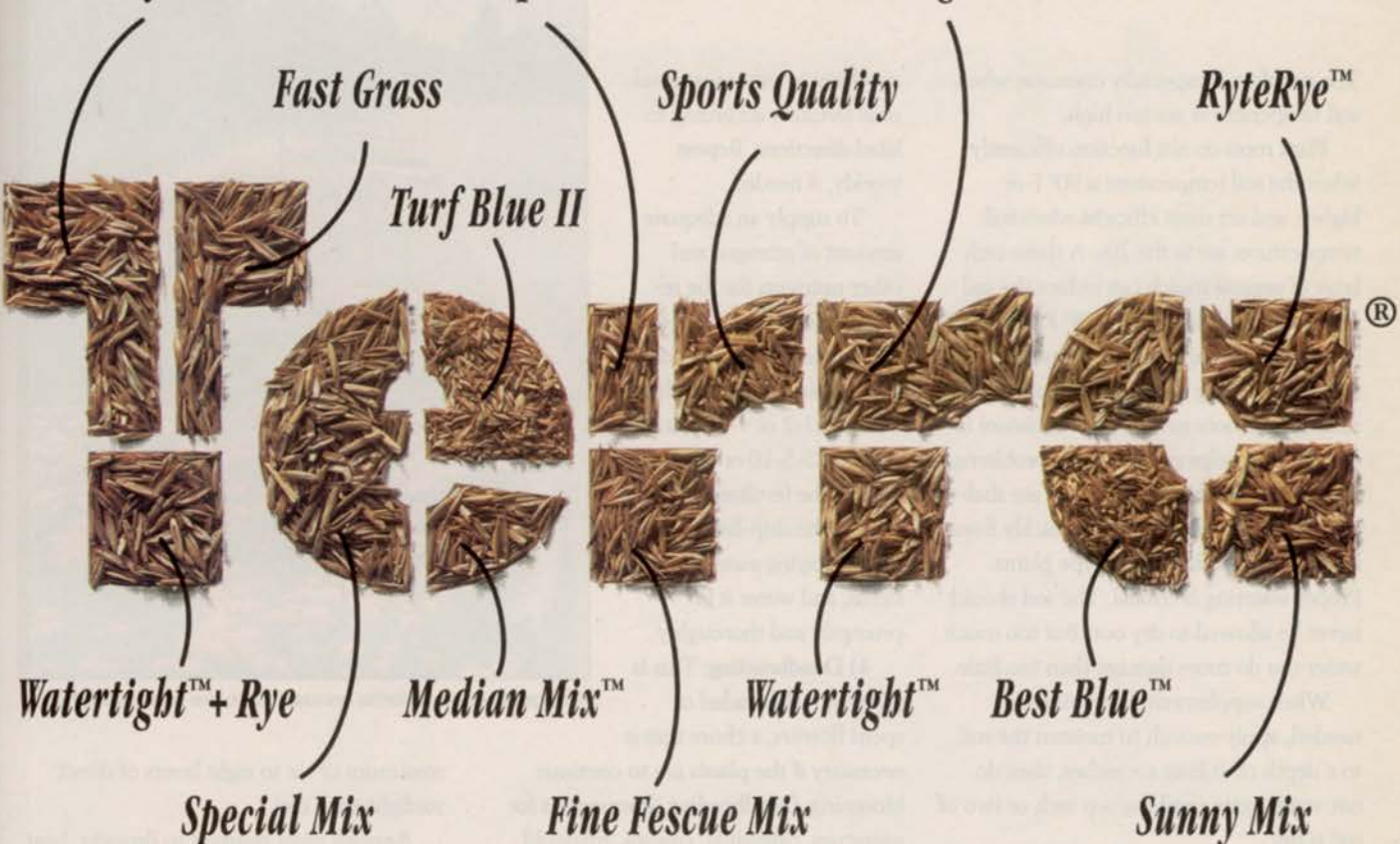
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The problem is especially common when soil temperatures are too high.

Plant roots do not function efficiently when the soil temperature is 90° F or higher, and are most efficient when soil temperatures are in the 70s. A three-inch layer of organic mulch can reduce the soil temperature by as much as 25° F, keeping it in a favorable range for root growth and efficiency. Mulching reduces evaporation, maintains a more even level of moisture in the soil, and helps prevent weed problems.

Because most annual flowers are shallow rooted, they suffer more quickly from moisture stress than other type plants. Proper watering is critical. The soil should never be allowed to dry out. But too much water can do more damage than too little.

When supplemental watering is needed, apply enough to moisten the soil to a depth of at least six inches, then do not water again until the top inch or two of soil is dry.

Frequent, shallow watering leads to shallow root systems and plants that are less able to survive heat, low humidity, drying winds or other types of stress.

3) Improper fertilization: An ample supply of phosphorus is needed at planting time and during the early part of the season to stimulate root growth and hasten maturity, but once the plants are producing, their needs change. Nitrogen and potassium become more important. We generally think of nitrogen as stimulating foliar growth, but it is also necessary for reproduction. Because flowers, and the resulting seeds, are the plant's method of reproducing, an ample supply of nitrogen is important if the plants are to stay in bloom. Also, it should be remembered that by mid-season much of the available nitrogen in the soil has been either used by the plants or leached out of the root zone by rainfall or watering.

For a quick boost, foliar feeding is a good option. Use a spray application of fish

emulsion or other water-soluble fertilizer according to label directions. Repeat weekly, if needed.

To supply an adequate amount of nitrogen and other nutrients for the remainder of the growing season, make one application of a slow-release lawn fertilizer with a 3-1-2 or 4-1-2 ratio, such as 15-5-10 or 16-4-8. Scatter the fertilizer lightly around the drip-line of the plants, staying away from the stems, and water it in promptly and thoroughly.

4) Deadheading: This is the removal of faded or spent flowers, a chore that is necessary if the plants are to continue blooming. Deadheading is important for ageratum, calendula, cosmos, marigold (except triploid or mule marigolds), rudbeckia, scabiosa and zinnias. Poppies (*Papaver*) are an exception. Removing faded poppy flowers will not result in additional blooms.

To understand the importance of frequent deadheading, remember that the goal of the plant is to produce seeds for the next generation, not to produce flowers for us. If we allow the plants to produce mature seeds, they will have fulfilled their mission in life and flowering will slow or cease entirely. When removing flowers for display or during deadheading, always cut back to a healthy leaf or to the soil line if there are no more leaf buds on the stem.

5) Wrong plant in wrong place: Poor flowering during the summer can also be caused by too much or too little sunlight. Impatiens and begonias bloom best in shady locations and will not tolerate the hot afternoon sun.

On the other hand, marigolds, zinnias, periwinkles, moss rose and verbena need a



Marigolds are a favorite annual; there are many varieties.

minimum of six to eight hours of direct sunlight each day.

Annuals most resistant to drought, heat and the hot summer sun include periwinkles, zinnias, moss rose, alyssum, verbena and purslane. Marigolds are also included, except for dwarf French marigolds (*Tagetes patula*) in the South. They suffer heat check or heat stress.

High night temperatures and high humidity can cause a greenhouse effect that promotes growth rather than flowering. The larger African or American marigolds are not as sensitive to heat and, if kept healthy, will continue blooming.

Triploid or "mule" marigolds (*T. erecta* and *T. patula*) are the most dependable. Because they are sterile and cannot produce seeds, the plants put all their energy into producing more and more flowers. Triploid marigolds will bloom prolifically all summer. **LM**

—The author writes on horticultural topics from Lancaster, Texas.

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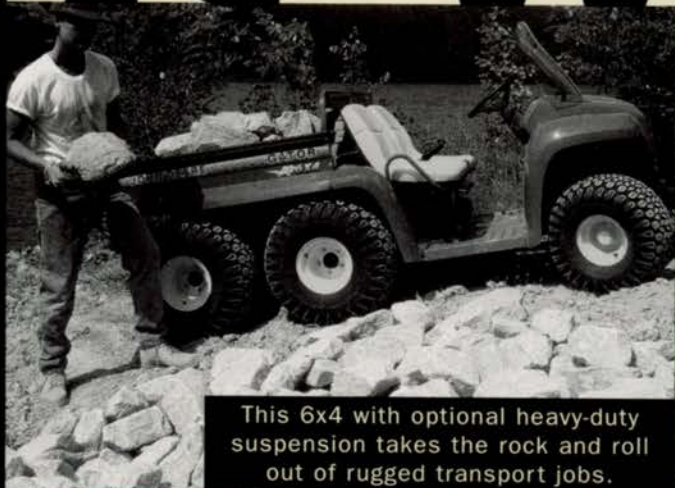
Is
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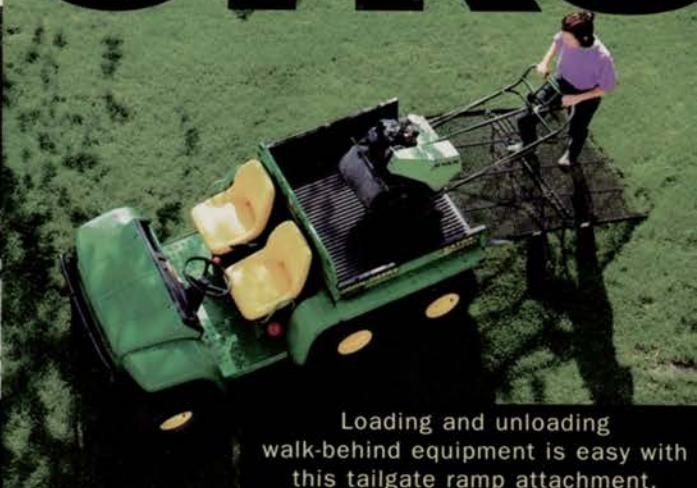
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97 INDUSTRIAL DESIGN EXCELLENCE AWARDS

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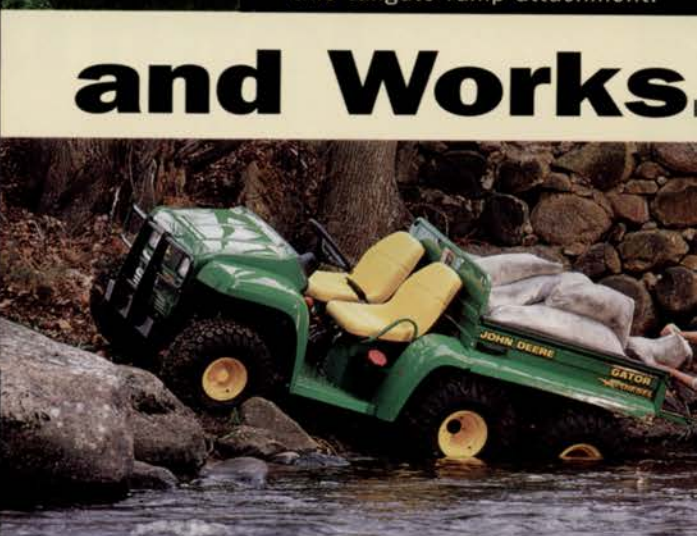
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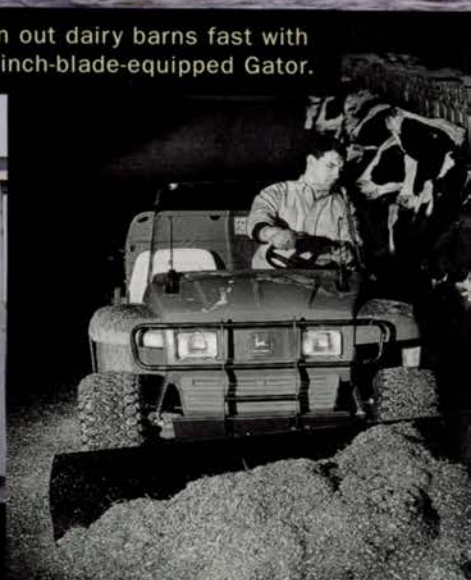
and Works.

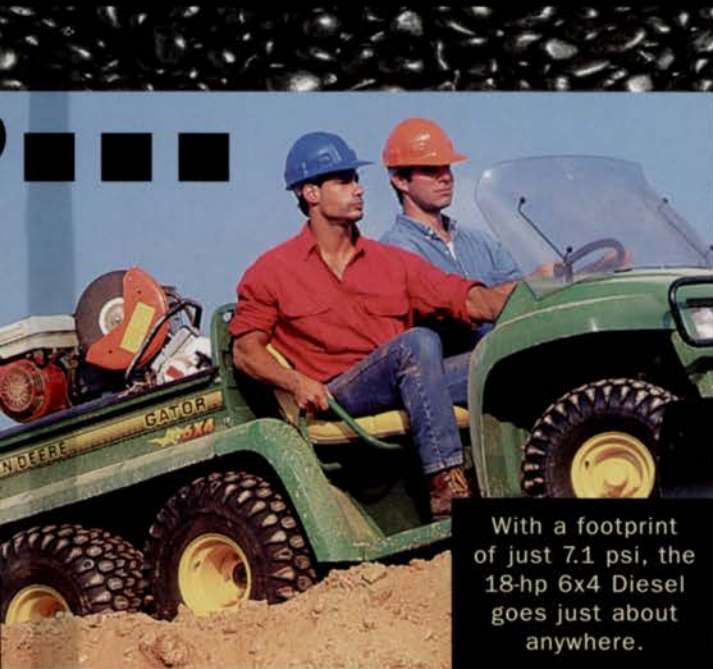


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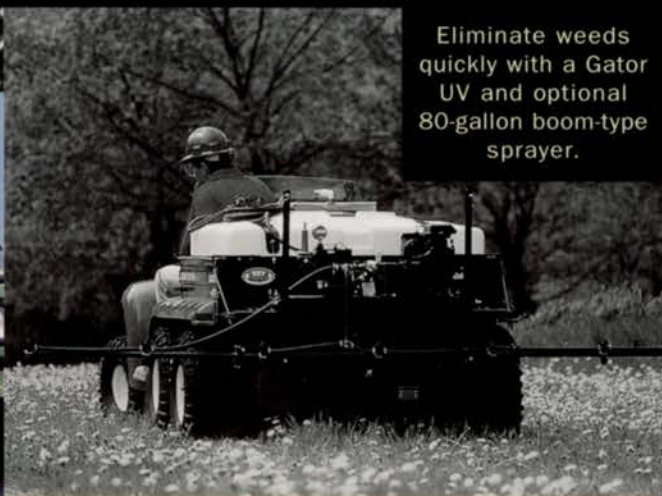


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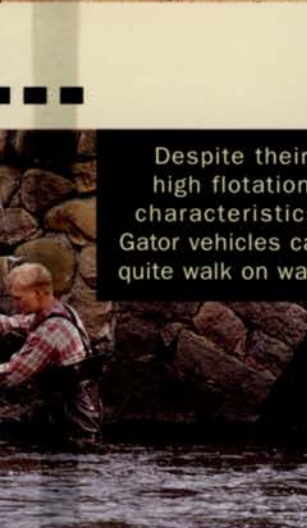


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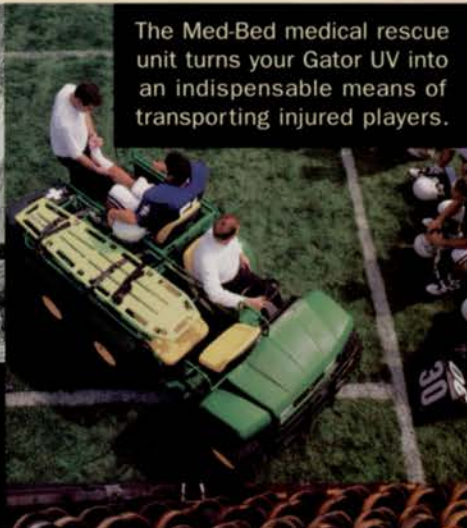
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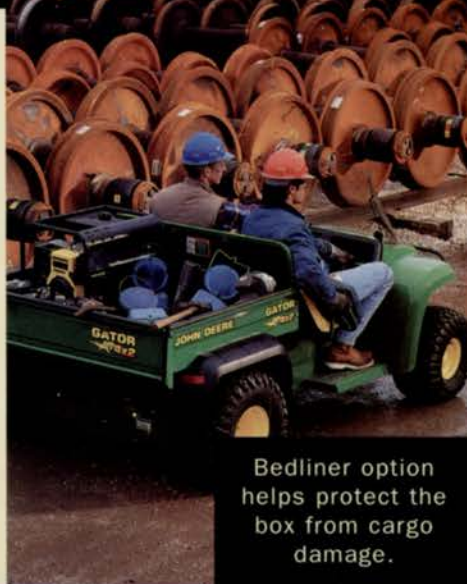
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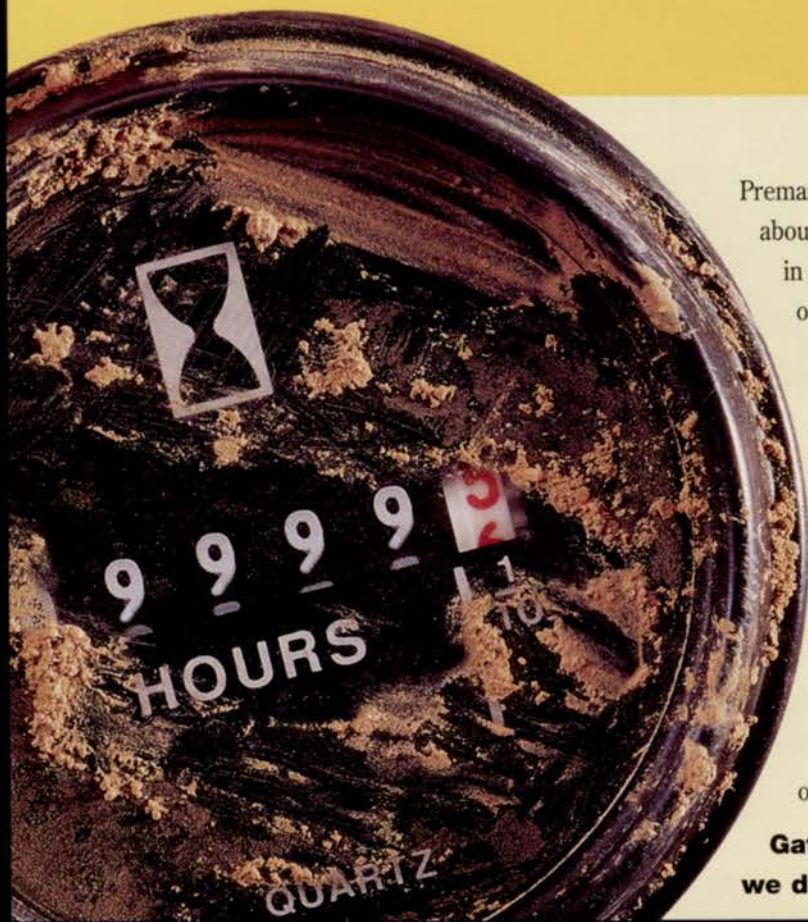
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Ron Hall

RON HALL
Managing Editor

The fishing hadn't been kind to Bob "Low-Super-Drive" Stevick who earned his nickname by the insane way he shifted gears on his dad's Olds 88. (The Olds had an automatic transmission, by the way.)

Bob was casting a flashy "Wonder Boy" lure and he hadn't registered a hit. The rest of us bobbed jigs. We were murdering the bass and crappie in the farm pond.

"Why do you suppose it's called the Wonder Boy?" mused Bob, again scrutinizing the the incredible claims on the lure's empty package.

"Because it'd be a wonder if it ever caught a fish," chimed in Fats Orty. The comment drew the expected jibes, but Bob insisted the Wonder Boy would, soon enough, work magic--it never did.

That long-ago afternoon of fishing with buddies popped into my head at this year's Turf-Seed, Inc. Field Day in Rolesville, NC, as I walked over a turf plot planted with a grass seed touted as "Miracle Lawn".

This seed is sold through advertisements in some consumer magazines. The price is steep, \$6 a pound or so.

Miracle Lawn? You bet. *It would* be a miracle if this grass seed ever produced anything resembling a lawn.

Then there's my brother-in-law who was hooked by a magazine advertisement promising an "amazing" lawn. He mailed his check and received, several weeks later, a manila envelope stuffed with sprigs. He planted them out. They did—as promised—spread over his yard. In fact, over several seasons, they spread into the edges of his neighbor's lawn too. *Amazing*. But not good.

Most homeowners know little about grasses, the differences among species and varieties. They recognize names like Kentucky bluegrass, perennial ryegrass and tall fescue. That's about it.

[LANDSCAPE/GROUNDS]

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Protecting Puget Sound

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Making waves in the desert

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Make newsletters work for you

PAGE 14 L ▶

Mizzou's 'hammered' sports turf

PAGE 16 L ▶

Coupons: junk mail jewels?

PAGE 18 L ▶

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Look over LM's '97 Pocket Seed Guide. (It came with July's issue, or let us know and we'll send you one.) In particular, review the data from sites closest to you to see which turfseed varieties perform best in your region. Talk with local university and extension turf experts too.

Remember, your clients probably know little about turfgrass. **LM**

Questions, comments? Call Ron at (216) 891-2636, fax at (216) 891-2675, or e-mail at rhall@advanstar.com



Protecting Puget Sound

Landscape architect Angela Danadjieva's job was to beautify (and hide) Seattle's new half billion dollar sewage treatment facility.

By LESLEE JAQUETTE

After a decade of: planning; permits; building a 3,000-foot-long retaining wall; moving 30,000 cubic yards of topsoil; 20 miles of irrigation line;

10,000 trees and 15,000 shrubs and ground cover plants, the \$573 million West Point Sewage

Treatment Plant in Seattle, Wash., is open.

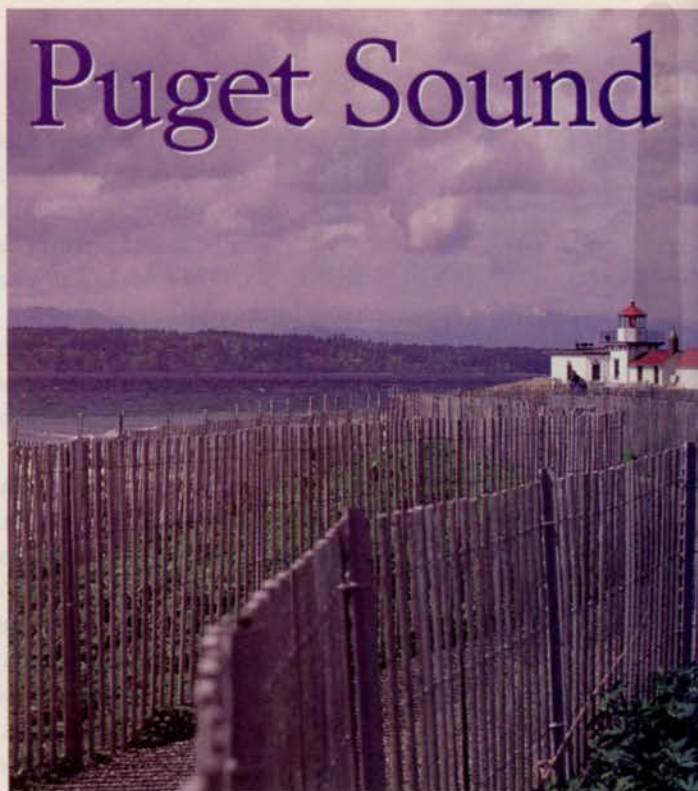
Found on a spit of land on the east side of Puget Sound, adjacent to Seattle's largest public park, the secondary treatment plant was the single largest investment ever made to protect the water quality of Puget Sound. The key to the success of the project was the landscape design created by Angela Danadjieva of Tiburon, Calif., and CHM2Hill of Seattle.



Lisa Niehaus is head gardener for the treatment plant's 23 acre park.

"I'll probably never work on a job where landscaping receives a higher priority," says Landscape Project Manager Linda Sullivan, Seattle.

The goal of the project was to install the plant on a linear piece of land. Sullivan says the landscape designers promised to hide the plant from the perspective of the shoreline trails that are popular with visitors to Discovery Park. To achieve this goal many of the tanks were submerged on the 32 acres dedicated to the plant facilities. The inside of the plant includes three acres of landscaping



while the outside doubled the public area to 20 acres of landscaping, trails and beach access.

Beyond the goal to create a landscape that blends with Discovery Park, the landscape screens the plant from view, increases wildlife habitat and diversity and creates a tranquil and passive environment where people can enjoy nature, undisturbed by the sewage plant. A tall order considering the old plant, built in the 1960s, included acres of concrete surrounded by chain link fence.

"She's sculptural in approach," says Sullivan of Danadjieva. "What you see instead of an industrial facility is the undulation of wetlands, wall, trail and water, blended by the use of native plants."

One of Sullivan's responsibilities was managing the growing contracts for the project.

Working with regional nurseries was important because the job was so large planners couldn't be certain plants would be available through the conventional bidding process. To obtain the right plants (80 native species) all the right size at the right time, she negotiated growing contracts after a selection process in which nurseries submitted qualifications, growing plants, financial plans and, finally, prices. Price was a factor, but only about 30 percent of the qualification process, says Sullivan, adding, "it was more important to get high quality materials."

The plant list for the project included 10,000 trees, mostly willow and pine, 50,000 shrubs and 100,000 plugs of American dunegrass and wetland grass. Because of the strong commitment made to the public that



Park grounds feature native plants

Bald eagles soar over the park's bluffs, noisy sea lions gambol in the surf while a great blue heron stands on the shore poised like a statue. On a sunny day 13,000-foot-high Mount Baker looms large as wood ducks splash in the wetlands pond near the heron.

The new landscape surrounding the West Point Secondary Treatment Plant in Seattle, Wash., looks natural, with a little help from head gardener Lisa Niehaus. She and staff maintain the 23-acre park on Puget Sound.

Niehaus is the former senior gardener and horticulture crew chief for Seattle City Parks, and Seattle's Woodland Zoo, but she has her hands full at the site of Puget Sound's largest restoration area. The area is divided into the three acres within the treatment plant with their planters and green buffer, as well as the outside 20 acres.

Drainage is the biggest problem inside the facility due to the shallow soil atop a number of submerged treatment tanks. To expedite better drainage, Niehaus is interplanting with smaller plants around the 80 different varieties of native plants already in place. She hopes the roots on these plants will spread and form a cachement for Seattle rains.

Tending the long, linear park, which includes a 1.1-acre pond and wetlands, Niehaus fights a battle with weeds, critters, irrigation and wind damage. Using a summer staff of five along with volunteer gardeners, she attempts to weed enough so that eventually young plants can compete. Similarly, about all she can do is monitor for pests. Her goal is to let population levels of insects control themselves.

"The end result is a natural habitat that people can enjoy. It doesn't need to be perfect like a formal rose garden," says Niehaus.

Niehaus and crew keep an eye on 20 miles of temporary irrigation lines, observing which plants are prospering and which need more water. Still, getting familiar with the site and drawings and keeping 250 sprinkler zones functioning is one of her biggest challenges.

Another challenge is wind. It whips and curves around the beach and inside planters and walls. The larger hemlocks and willows on the windward side of the park suffered tremendous windburn last winter. Where these need to be replanted, Niehaus plans to use smaller, one-gallon trees that won't be as susceptible to wind. By the time they are tall enough to be affected by the wind they will have developed sufficient roots to survive the assault.

To prevent voles (mountain beaver) and deer from stripping bark off of new trees, Niehaus uses products like Ropel and Deer Away.

While some of her maintenance techniques are commonplace, like using only slow-release fertilizers, some are unique. For instance, in March and April she floods the wetlands about one foot higher than normal to control cattails and keep their roots from choking out other vegetation.

The most exciting future prospect for the park, says Niehaus, is that the site may one day use reclaimed water for irrigation. If the permit process continues as planned, she should be able to use reclaimed water in the summer of 1998. □

In March and April, Niehaus floods the wetlands to control cattails and keep roots from choking out other vegetation.

PHOTOS BY LESLEE JAQUETTE

the sewage plant be screened immediately, the plant material was planted very close together. The design calls for the material to gradually slope from the flat, sandy spit and intertidal lagoon up toward the treatment plant and forested hillside.

To achieve best growth, 110,000 lineal feet of irrigation was submerged in 30,000 yards of topsoil. Compatible with the subgrade, this soil is a mix of 60 percent sand and 40 percent Groco.

"We realized we needed to have a sandy, loose soil to be successful and forgiving during winter construction," says Sullivan.

Sullivan credits Ohno Construction of Seattle with a job well done, particularly given they had to bring in the topsoil by barge to minimize impact on the neighborhood and park.

To do this contractors used a temporary dock and maneuvered soil in all kinds of weather and conditions.

Even though the materials were planted during a year that included one of Seattle's wettest winters, the park is quickly achieving its goal as a screen, habitat and public space.

"Even though Danadjieva was under tremendous pressure to simplify things by using more straight lines, she was absolutely single minded in her realization of her vision. She surrounded herself with highly technical people who were able to communicate within the limits of construction documents," says Sullivan.

"Danadjieva imagined, communicated and then saw this project constructed." □

Making waves in the desert

When clients in the red-hot Las Vegas market want action from Par-3 Landscape and Maintenance, one call is all it takes.

by DON DALE

Mark Rockwell isn't just riding an unprecedented wave of growth in Las Vegas, he's helping to create it. Par-3 Landscape and Maintenance, the company he founded just over two years ago, took off even faster than Rockwell had envisioned.

He credits much of this success to the business philosophy that he and partners Shawn Buckley, Paul Jaramillo and Charlie Norton, subscribe to—do quality work for clients who appreciate and can afford quality work.

"When I do a bid for somebody I tell them I'm not the cheapest, but I'll do a good job," Rockwell says. His clients now include such high profile properties as the New York New York casino, McCarran Airport and The Gardens, an exclusive residential subdivision. His company has gone from five to 35 employees in just the two years.



Rockwell, right, with Mark Murphy in front of one of their most visible clients, New York, New York. Murphy is the Par-3 Landscape and Maintenance foreman at the site.

The real secret to Par-3's success, in addition to the quality of its work, is the promptness and thoroughness of its service.

"Call-backs have to be gotten back to," Rockwell emphasizes. "If they call you, you need to be back there that day. Property managers don't want to wait three or four days."

That might not be the case on an athletic field or a strip mall, but a hotel or homeowner's association demands excellent service in order to maintain a manicured look. That's what sells their business, and that's what Rockwell provides.

Make it glisten in the sun

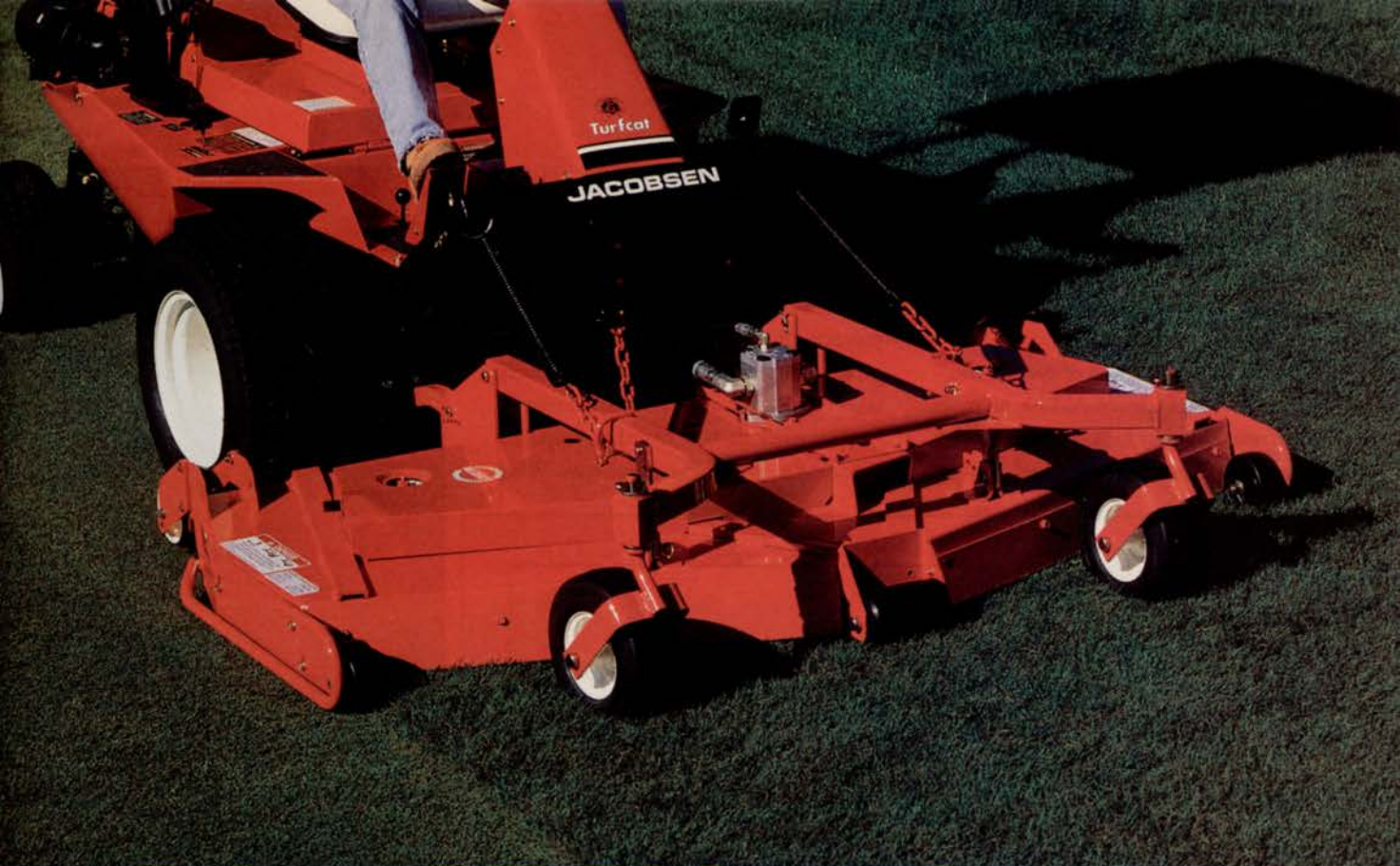
"A property manager wants that property to shine," and a broken sprinkler head spraying ten feet in the air isn't a good advertisement for them—or for their landscaper.

"I know it takes time, but we have a separate employee who just takes calls," Rockwell says. In fact, he's set up his company to respond to service calls as quickly and efficiently as possible.

cont. on page 6L



A Par-3 Landscape residential construction site in the Mountain Trails subdivision—workers installing mature trees to give a finished look to an upscale job



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cont. from page 4L

First, he has a roving supervisor who oversees his six crew foremen. That supervisor also either handles service calls himself or gets somebody else on it right away.

Another set of eyes

"He's actually another set of eyes for me," Rockwell says of Clinton Aldana, his mobile supervisor. It's easy for a crew to overlook details on a maintenance job, and the man-

ager on wheels helps spot defects just as Rockwell does.

Since irrigation problems are by far the number one call-in for service, Rockwell has a small truck set up just for irrigation projects. It is stocked with heads, risers, pipe, fittings, valves and other commonly used parts—plus a good irrigation man.

This truck darts all over Las Vegas, responding to irrigation emergencies. When



Rockwell at a site he designed and installed in the Desert Trails subdivision.

there's no emergency, the irrigation man helps out on other jobs or follows the mowing crew to fix any damaged sprinkler heads.

"Now that it's hotter, I may have to provide another guy to ride with him," Rockwell says of summer, when irrigation problems mount up quickly.

The other common call-in problems are turf hot spots and physical damage to landscaping or equipment. Making those service call-backs make Par-3 shine in Las Vegas. The rapid accumulation of contracts is proof that the company satisfies its clientele.

Maintenance secrets

As far as quality maintenance goes, mowing, weeding and edging are all pretty standard practices. But Rockwell has a couple of secrets for doing an excellent job.

cont. on page 8L

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cont. from page 6L

The first is with flowers, which are often used by upscale developments.

"Annual color has to be fresh all the time," he says. He says he not only has a nice eye for designing beds and variety mixes, but he also goes the extra mile to keep flowers fresh for the four months that a bed typically has to last. He puts down good, balanced fertilizer that gives immediate

growth and sustains the plants over the long term. He also selects varieties that will stretch their color longer.

"I can plant something in October and have it last until March or April," he notes. By selecting pansies and flowering kale, for example, he will get good longevity in the winter. In the summer those will change to vincas and salvia. He also has his crews do a lot of "dead-heading," or plucking off

dying flower heads so that plants regenerate new flowers promptly. That keeps a bed fresh past its prime.

"That's something that makes the property manager say, 'Wow, I love this company.'"

Another secret is to keep shrubs trimmed, Rockwell says. If he has a contract to trim once a month, he may trim more often on a site that wants that manicured look. His crew at New York New York will also wash off dusty plants to keep them fresh looking.

Rockwell's own secret is that he likes the design and construction end of his business more than the maintenance end. And he wants the company to grow there too.

One job at a time

Currently he has a five-man crew devoted to installation, specializing in upscale residential projects. He does only one construction job at a time, and wants to add another crew to double his capabilities.

"There's a lot of work out there flowing our way," he says, and he loves residential design. Large maintenance jobs earn the company the most money, but he has to keep his creative spirit energized too.

Word of mouth is bringing a lot of design business his way, though he likes the informal rather than the blueprint approach. He has a technique for pleasing top-end residential clients: bigger plants.

"When you do an upscale looking job you want a more mature landscape immediately," he says. Thus, a canary palm tree may cost \$200 per foot, but if a new homebuilder is spending over a million dollars on a house he will also spend \$6,000 on two mature canary palms.

Rockwell also features commercial-grade irrigation systems for upscale homes and proper soil-building. In a region where the heat and terrible soils are a given, these are ways he can insure that a homeowner will remain happy with his landscaping job over the years.

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1

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Make newsletters work harder for you

These marketing tools should promote your landscape company through information, education.

By MARLENE EICHHOLZ

Newsletters are popular in the green industry, but if used incorrectly, they can become a waste of time and resources. If your company is thinking about starting a newsletter, or if you currently mail a newsletter, make sure that yours is actually helping your company and your readers.

There are three purposes for a newsletter:

- 1) **Promotional**, for marketing or public relations.
- 2) **Informational**, for updating employees, customers, vendors and friends.
- 3) **Educational**, subscription newsletters.

They can take the form of a paid subscription or free for customers or contacts. Most companies' newsletters are free promotional items. Make the most of your promotional newsletter by ensuring that it is also informational and educational. Even if it's free, it might not be appreciated by your customers unless they feel like they're being taught as opposed to being sought after. This will make your newsletter a more effective marketing tool.

Another important way to add to the effectiveness of your newsletter is to make sure your newsletter is consistent with your company's philosophies; people won't find your organization as credible if you are inconsistent.

How many of us have been turned off by environmental protection groups send-

ing hundreds of "trees worth" of solicitation material to our homes.

Once you've decided to produce a newsletter, you need to examine the costs. Newsletters can be very expensive but if you plan ahead there are many ways to produce a professional yet inexpensive newsletter:

- ▶ produce it in-house.
- ▶ keep it short and simple; a shorter newsletter costs less, takes less time, paper and postage.
- ▶ shop around for a quality, less-expensive printing company.
- ▶ ask your printer if there are alternatives which are most cost effective (i.e. preprinting color, using a standard color, avoiding bleeds, choosing a different type paper).
- ▶ don't go crazy on colors. Color increases printing costs dramatically. Try to stick to one color; you can always give the perception of different colors by changing the screen tints.
- ▶ do self mailers; lowers cost on envelopes.
- ▶ don't waste; avoid overprinting. Put a lot of thought into how many newsletters you will need.
- ▶ if you have a web page, save postage; put your newsletter on-line.

Make the most of your people resources. Get your staff involved. This is a good way to improve morale, and learn about hidden talents of your staff. Get your clients involved. Ask them what they would like to read about. You can even include a survey with your newsletter mailing, asking for feedback and ideas. This will help you out and ensure that they'll be more interested in actually reading your newsletter. This is also a great means for expanding your mailing list; ask your

clients to supply you with addresses of people who might like to receive your newsletter.

Remember that feedback should always be encouraged. If you remain flexible, you will be able to learn from your mistakes and have more fun with your newsletter. And stay on top of your competition by doing market research. It's important to know what others in your market are up to. Call up your competition to see if they have newsletters. If they've been sending newsletters out for two years and you're just starting, they have the advantage. Have a friend call and ask for a copy to be sent (preferably to the friend's address) so you can learn from their experience and, hopefully, from their mistakes.

Other tips:

- ▶ frequency is vital; you should send it out at least quarterly. This extra visibility ensures that your company's name comes to your customers' minds ahead of the competition.
- ▶ be on time. Make the newsletter production a consistent scheduled time. Customers are impressed by promptness.
- ▶ make the most of your newsletter. Keep it handy for whenever anyone asks for company information.
- ▶ And finally, make sure it gets read.

When you speak to your clients, ask them if they've read your newsletter. Make them aware of how important it is to you and (if you include coupons and seasonal specials) how worthwhile it is to them.

People today are on so many mailing lists that their mailboxes are being clogged with junk mail. If your newsletter doesn't stand out, it's going in the garbage even before it's read. If it's unread, it's worthless. As a "keeper," it's a valuable, cost-effective advertisement for your company. □



photo: Fred Bird

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Hammered turf

Sand-based turfgrass field at the University of Missouri withstands pounding of track and field events.

Not many events top the hammer throw in destroying sports turfgrass. Imagine what happens to grass when a 235-pound athlete throws a 12-pound hammer (a steel ball on a chain) into it.

"When it hits, it goes all the way into the sub grade," says Brad Fresenburg, sports turf researcher at the University of Missouri. But the hammer throw is just one of several track and field events that challenge the university's track/soccer area.

Even so, the field stays in excellent shape, says MU Track Coach Rick McGuire who describes it as "state of the art".

Fresenburg and McGuire give a lot of credit to Missouri's grounds crew for the work it does on the sand-based field. But, credit must also go to the designers of the field and the contractors who installed it.

Sand base, fibers for stability

The track/soccer field contractors installed a herringbone-design drain, which they laid into the sub grade and packed with pea gravel in the trenches. Then they put a 4-inch sand base above the drains. It can drain 15 inches of water in an hour.

The field was brought back to grade and sodded. The sod, which came from S&S Seed/Evergreen Sod operated by Gene Sanders, Rocheport, MO, is a blend of Kentucky bluegrass varieties. Turf-grid fibers tilled into the sand add stability to the base.

"We only have a four-inch sand base above sub grade, so when a hammer hits, it's like a cannonball coming into the turf at a 45-degree

angle," says Fresenburg.

"That's the best angle for maximum distance," says MU Track Coach Rick McGuire. He says his best throwers are Judd Price who flips the 12-pound

hammer 159 feet, and Heather White who flings the 8-pound, 10-ounce ball and chain 167 feet.

Once the ball hits, it slides more than half way under the sod. Meet officials just pull it out and get the hammer back to the athletes. Later the grounds crew fills in the holes with sand and tamps it down. In a couple of weeks, the hole is sealed shut by growing turf.

"The hammer does the most damage. The discus does very little and the javelin may actually be beneficial for aerification," says Fresenburg. "In fact, when our three-point-hitch aerifier wasn't working, we suggested to Rick McGuire that his team members take about 20 javelins and aerate the field." (Note: the aerifier was fixed before they had to do that.)

Field replacement job

The MU grounds crew maintains a lot more than just the track/soccer field. It also cares for all the grassy athletic areas between the MU golf course and the Hearnes Center. And MU's football field, unlike the track/soccer field, is crowned.

This season marks the third year that Missouri football players will be competing on real turfgrass at Faurot Field. After several attempts to patch damaged areas on the field, it was decided to renovate that field as well.

"We replaced the middle of Faurot Field from hash mark to hash mark, goal to goal, after the spring Black and Gold Game," says Fresenburg. "We removed all the sod and the silt loam soil down to the sand base and brought the field back to its original grade. Then we laid new sod."

Fresenburg says MU coaches cooperate when it comes to field maintenance. For instance MU Baseball Coach Tim Jamieson "spends a lot of time taking care of his field. If he sees a disease or sees something that needs to be done, he gets on the phone to us or takes care of it himself. In fact, he's so good at this, we've been thinking of giving him an honorary horticulture degree."

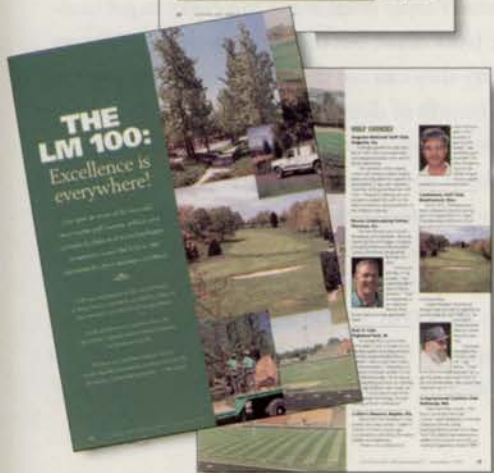
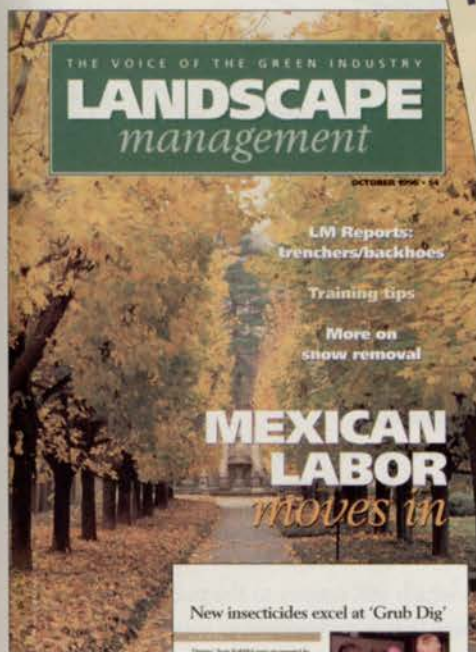
The next major task by Fresenburg and the grounds crew is the new softball diamond. "We'll lay the sod in April or May of '98 and the team will play on it in '99," says Fresenburg. □



"When a hammer hits, it's like a cannonball coming into the turf at a 45-degree angle," says Brad Fresenburg.

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Junk mail jewels?

Don't sniff at those packets of coupons you get in the mail. They're a form of advertising known as cooperative direct mail, and some landscapers say they help to find customers.

By AMY K. REAVIS

Owning and operating a lawn care or landscape company today is a smart business venture. With the increase in one-parent households, and couples having to work outside of the home, people are

often too busy for yard work. The percentage of households using lawn care and landscape companies continues to rise. Even so, landscapers and LCOs are battling more fiercely for new customers every day.

One innovative form of advertising that many of them use to pinpoint specific geographic markets is called cooperative direct mail advertising. With this cooperative marketing concept the landscaper or LCO shares advertising costs and envelope space with other local businesses such as restaurants, dry cleaners, and automotive centers. As part of a cooperative direct mailing, with national companies such as Super Coups, Val-Pak, Money Mailer or United Coupon, each participating business has a customized coupon which is mailed in an envelope to a designated number of homes in a targeted area. Local residents gain valuable savings with the coupons.

Relatively inexpensive

Cooperative direct mail advertising is, compared to other advertising mediums, relatively inexpensive. The overall cost of a mailing is less than 4 cents per home. Generally this cost includes creative assistance from a cooperative direct mail sales consultant to design the coupon, as well as the printing, production, and mailing of your coupon to a designated area. Often the sales consultant will help you design



With cooperative mail, the landscaper or LCO shares advertising costs and envelope space with other local businesses, says Amy Reavis.



Direct mail coupons

are especially effective in advertising special offers and promotions to ignite the interest of potential customers.

a coupon which will convey to the public an image and message that is appropriate to your business.

Karen Heffner of Karen Heffner Landscape Design in Davidsonville, Md., has been advertising with Super Coups for the past five years and says, "I always have good results." She participates in a mailing twice a year, spring and fall, and found at first that she probably lost business because she included an expiration date. "I have stopped putting an expiration date on the coupon because of the seasonal nature of my business. People often aren't in a hurry to get landscape work done, but they do save the coupons, so this way they can use them whenever they want to."

A benefit of direct mail is the ability to reach the people you feel would most likely benefit from or partake of your services.

You can geographically target specific communities by zip code, those areas you feel should bring a greater response rate. Most businesses target between 20,000 to 50,000 homes, but generally you can start out mailing to only 10,000 homes in your local area.

When looking for a national cooperative direct mail company, make sure to ask whether your business will be given exclusivity. In other words, you want to be the only landscaper or lawn care company in the mailing for your particular mailing zone. This advantage will narrow your competition and bring you the customers you desire.

Make it colorful

A benefit of direct mail coupons is that you can personalize them with color. Several of the companies have available for your use a collection of clip art and stock photograph. That's important, believes landscape designer Karin Heffner.

"If you have a catchy logo and an eye-catching coupon, people tend to keep them and use them. I've seen my coupon on people's refrigerators," she says. "The sky's the limit and you can be as creative as you'd like, or you can simply tell your consultant what you'd like and the consultant will have it designed for you."

Direct mail coupons are especially effective in advertising special offers and promotions to ignite the interest of potential customers. Perhaps an offer of a free service with a seasonal agreement, or dollars off a project for new customers. Use your own judgment when determining what kind of offers to promote. As a general rule, coupons usually work best when targeting new customers who aren't aware of your business or service. Once you bring them in with the coupons, you will have an opportunity to impress them with your expertise and service.

Heffner has been successful in her local area with a promotion that she has been running in which she donates 10 percent of all proceeds to the Kevin Reichardt Scholarship Fund. The foundation was set up in this student's memory after his death several years ago. "Kevin was a star in the community and people want to contribute to his foundation. It gives me a good feeling to be able to do this for his family," says Heffner.

Build name recognition

It is well known that the key to successful advertising is repetition. It's beneficial to keep your company's name fresh and recognizable within your community. Consistent mailing with annual agreements involves higher redemptions and lower advertising costs. By advertising in each mailing, you inexpensively repeat your ad to the public creating name recognition, each time bringing in new customers. And since you attempt to attract a local, consistent

market of customers, it's only appropriate that you consistently target your advertising to the same general group of residents. Remember, repetition is the key to success.

According to a study by Frankel & Company and published in *DIRECT MARKETING MANAGEMENT MAGAZINE*, more than 99 percent of American households use coupons in their everyday shopping for both products and services. Of this group, more than 94 percent use direct mail coupons. With a high percent age of households guaranteed to use direct mail coupons, you can not afford not to invest in this successful type of personal marketing that allows you to enter a prospective customer's home, sometimes before they even know of your business.

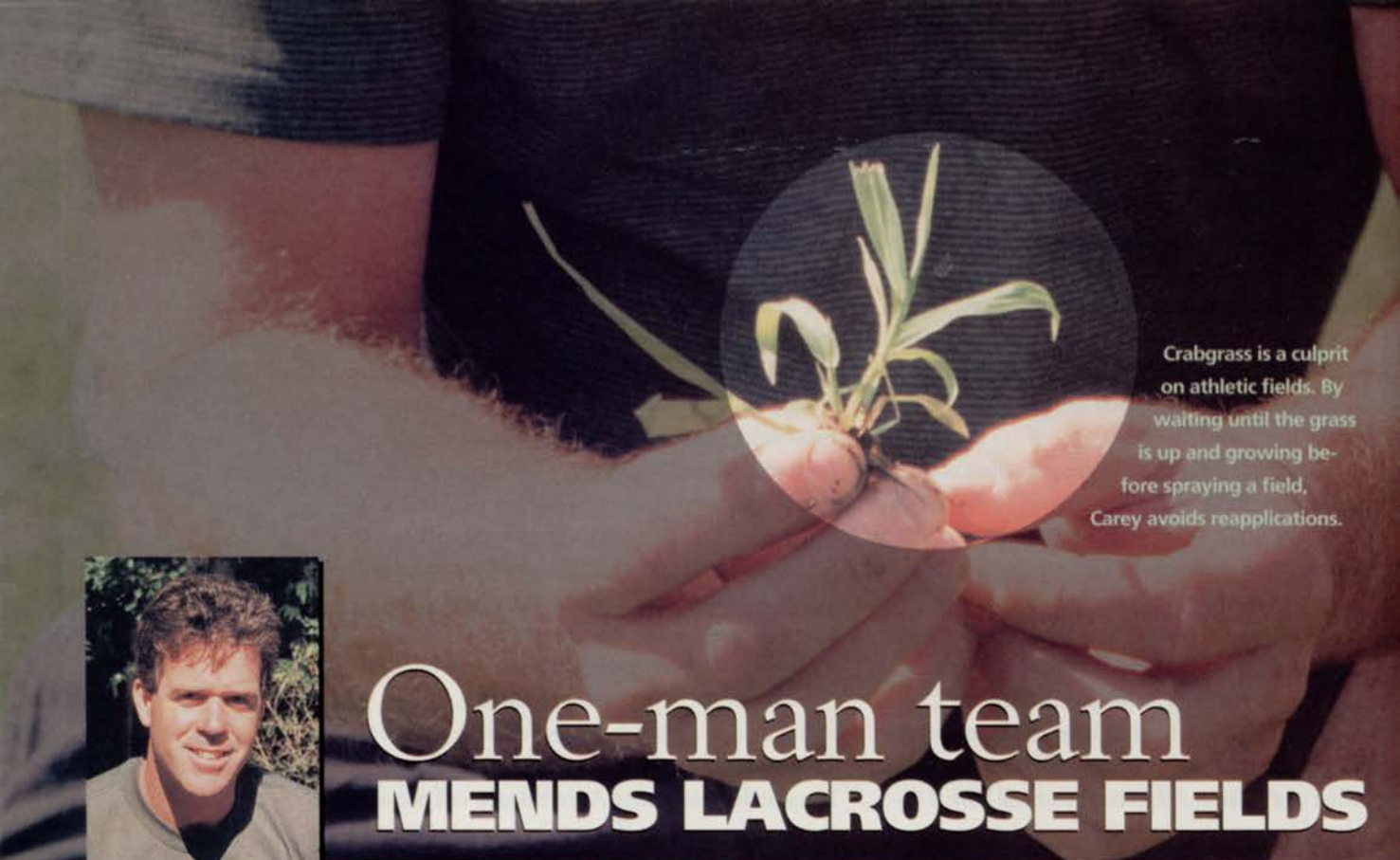
Cooperative direct mail is personable, professional, of high quality and is proven to be effective. To learn more about it, look in your local Yellow Pages under Direct Mail Advertising or call one of these resources: Super Coups Cooperative Direct Mail at 800/626-2620; United Coupon at 800/368-3501; or Money Mailer at 800/624-5372. □

—The author is director of marketing for Marketing Solutions in Fairfax, VA, and an avid amateur gardener.

Tips for couponing success

- ▶ **Plan annual direct mail advertising budgets:** A preplanned yearly budget will reduce the cost of your overall campaign and will help keep your advertising consistent and repetitive.
- ▶ **Introduce new products and services:** If you have a new service, display a pertinent photo, or highlight the service on your coupon to draw in customers. Make sure your coupons say what the customers need to know.
- ▶ **Use full color:** Studies show that consumers prefer full-color ads 3-to-1 over black and white ads. Ad recall after 24 hours has been shown to be almost 70 percent for full-color ads versus 41 percent for black and white. Work with direct mail companies that can print in color for maximum results.
- ▶ **Use quality photos and clip art:** People tend to be attracted to photos first, then they read headlines before deciding if they want to search further for the specific details of an offer. Work with couponers that offer full-color art libraries as an extra free service to you.
- ▶ **Order coupon overruns:** An inexpensive way to get even better results from your coupons is to order an extra 2000 or more to display at your location, or to place in area businesses or restaurants where the public has access to them. You can also give them to clients to share with neighbors and friends. □

—by Glen Liset, vice president of Super Coups



Crabgrass is a culprit on athletic fields. By waiting until the grass is up and growing before spraying a field, Carey avoids reapplications.



One-man team MENDS LACROSSE FIELDS

John Carey, owner of Field Goal Athletic Turf, Peabody, Mass., does the fields over every spring, and aerates often to mend wear and tear.

Lacrosse players tear up an athletic field worse than any other team sport, says John Carey, owner of Field Goal Athletic Turf, Peabody, Mass. "They have only three areas of play—the face-off area and two goals," Carey adds. "Players put so much pressure on these areas that I usually end up rebuilding the fields every spring."

Among Carey's pet peeves are football and soccer coaches who run their drills on the same end of the field every time they practice their teams. "If the field is set up with one end nearest the locker room, they stay on that end to practice," he explains. "So you wind up with one end of the field really chewed up and requiring a lot of

work. If they would only move them up and down the field and outside the pre-emergence hash marks it would wear the field evenly."

Busy in Boston

A veteran of 14 years in athletic field maintenance, Carey has an intimate knowledge of many of the football, soccer, Little League and lacrosse fields within a 60-mile radius of Boston. Though he started the business with a partner, he bought him out seven years ago and works as a one-man operation for about 45 communities and schools. He specializes in field maintenance but finds himself moving into field construction as time goes on.

"When I first take on an account, I often begin by rebuilding the field," says Carey, a licensed turf manager who regularly attends turf seminars and workshops through the University of Massachusetts. "Generally, I strip out the area, regrade it, bring in some loam, crown it off and resod or reseed it. I use tractor-driven equipment and seed in several directions, paying special attention to the low spots. Athletic fields have to have a more solid root system be-

cause of all the wear and tear. It's not the same as caring for a lawn. Sports turf maintenance is a very specialized industry."

Educating customers

Field Goal Turf's basic program includes four scheduled visits each year, but Carey tries to call on each customer three or four times in between the planned applications. He evaluates field conditions and educates his customers regarding mowing, watering and general maintenance. His motto is: "We grow it, you mow it!" Most of his customers soon learn not to water at night during hot, humid weather and to keep mowing heights at 2 1/2 inches in warmer temperatures.

Aeration is the most crucial component of athletic field maintenance, says Carey. He subcontracts deep-tine aeration for the majority of his fields once a year in the spring. Without aeration, it would be difficult to get proper nutrients and plant protection materials into the root system because of the severe compaction on most athletic fields. So Carey begins his program each year with aeration and slice-seeding sometime in the spring.

"I slice-seed with a 75/25 mix of bluegrass and ryegrass," he explains. "Then I take soil samples from various areas and begin fertilization and weed control in June. I try to put down four pounds of N each year, but I don't apply pesticides unless I absolutely have to. In fact, I can't use crabgrass materials because I'm always seeding. I control crabgrass on a post-emergence basis, making sure the weed is up and growing before treating so that I don't have to come back to reapply."

Carey began using Acclaim 1EC Herbicide for postemergence crabgrass control when the product first came on the market eight years ago. He applies it at the rate of ¾ oz. per 1,000 square feet using a three-wheel Cushman vehicle. He sprays four acres to the tank and normally gets about 16 acres sprayed before the wind picks up each morning. As situations warrant, he

tank mixes Acclaim 1EC with fungicides, insecticides and broadleaf herbicides. "It's great to be able to apply a herbicide just when you need it and to only make one application," says Carey.

Fall treatments

Fall fertilization goes down in September just before football and soccer season starts. His fourth and last treatment is in mid-November, just before the Thanksgiving Day games. He began using Nutralene controlled release nitrogen two years ago: 1 pound of N per 1,000 square feet in his second and third visits and 1 ½ pounds on the fourth visit, with added lime if necessary. "This last application gets me through the first six weeks in the springtime, allowing me to concentrate on aerating and slice-seeding instead," he says.

In recent years, Carey's business has shifted to 35 percent field construction and

65 maintenance. He travels to other New England states to carry out various construction assignments, hiring local laborers and renting out bulldozer work. "This work is basically tearing up the old field, recrowning, putting back the clay and re-sodding the field," he says.

The marketplace has been kind to Field Goal Turf. Carey hasn't made a cold call since his first year in business. "Turf managers are a tight group and they ask each other who's taking care of their fields," he says. "I get all of my work through word of mouth now. But people also get to know me at conferences and shows, where I often give talks or have a booth. That's the great thing about the athletic field industry—business is booming." **LM**

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Wisconsin Federation starts 'Hall of Fame'

The Wisconsin Landscape Federation's Green Industry Hall of Fame was established in July, as 22 inductees were publicly introduced at an induction dinner.

Forty-four names were submitted for consideration. In subsequent years, no more than three persons will be added each year to the Hall of Fame. A permanent site has not yet been selected, but several sites are under review, according to Joe Phillips of the Wisconsin Landscape Federation.

Inductees include:

Ken Altorfer, McKay Nursery Co. Altorfer started a landscape design program to reach middle-class home owners through a volume approach;

Patrick Buckley, tree expert credited with initiating IPM for trees;

Sam Ferguson, founder and past president of the Horticulture Inspection Society;

Tom Lied, Lied's Nursery Co., a founder and past president of ALCA, and for many years the leader of the industry's "Crystal Ball" Committee;

Arnold Sieg, head of the landscape maintenance division of Bruce Co., who has been active with ALCA and the Wisconsin Landscape Contractors Association. □

Irrigation Assoc. supports Ill. contractor case

The Irrigation Association has voted to start a matching fund of \$7000 to help the Illinois Turf Irrigation Association pay legal fees in a case before the Illinois Supreme Court.

At issue is the right of irrigation contractors to assemble irrigation components downstream of backflow prevention devices. The issue centers around where a plumbing system starts and where it ends. In the past, the backflow device was considered the point where the plumbing system ends. However, a Chicago irrigation contractor was cited in 1995 for assembling an irrigation system downstream of a backflow device, which is legal according to common industry practices.

Contractors say they are being picked on because the Illinois Health Department does not require licensed plumbers to install overhead fire sprinklers, water conditioners and softeners and agricultural irrigation.

"If the Supreme Court does not correct this mistake, then our industry will be prevented from pursuing our trade and the price of irrigation system installation in the state will rise dramatically," says Michael Clark, irrigation manager for the Brickman Group, Ltd.

"Licensed plumbers charge twice as much as landscape contractors to install turf irrigation systems. Furthermore, the error might set a precedent for other states to follow. That would be devastating to our industry."

Dan Cassidy, president of the Illinois Turf Irrigation Association, says it takes five years of apprenticeship to become a licensed plumber, and there is only one question on the plumbing exam about irrigation systems. Cassidy says the backflow device manufacturers contributed to the heightened fear of backflow potential in the state health department, which led to this controversy. □

OTF has new address

The Ohio Turfgrass Foundation has a new address: P.O. Box 340546, Columbus, Ohio 43234; 614/760-5442; fax: 614/760-5431. □

New officers at Ore. Seed Trade Association

The Oregon Seed Trade Association has named Jay Burr, The Scotts Co., Gervais, Ore., as its new president for 1997-98. Vice president is Galen Tryer, Ampac Seed Co.; Nancy Aerni of Turf Merchants serves as secretary-treasurer.

Elections were held at the Association's annual convention in Sunriver, Ore.

The Hysop Professorship at Oregon State is nearly a reality, according to Dr. Leah Brilman. A fund of \$300,000 will be available for scholarships and turfgrass seed research, once all donations are realized and state matching funds kick in. □

NJ Alliance auction helps out

The Alliance for Environmental Concerns, Warren, NJ, added \$2900 to its coffers during a recent silent auction. The monies help support AEC operating expenses and programs.

Product contributors include Lebanon Turf Products; DowElanco; Novartis Turf & Ornamental Products; W.A. Cleary Co.; Barenbrug Seed Co.; Plant Food Company, Inc.; Wilfred MacDonald, Inc.; Lesco; and White Beeches Golf & Country Club.

The AEC tracks and reports on developments in legislation that directly affects product applicators. It supports reasonable pesticide regulations and sound application practices. □

GOLF

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Prestonwood shop a champ

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Students catalogue course wildlife

PAGE 96 ▶

The team at Grand Traverse

PAGE 146 ▶

'Carbo load' fights winter kill

The Everglades Golf Course Superintendents Association and Olde Florida Golf Club are establishing a test green for four new varieties of "ultradwarf" bermudagrasses.

The four varieties planted on the 2,500 square foot chipping green are FloraDwarf, Champion, TifEagle (TW-72) and MS-Supreme. Each variety will be planted in duplicate to insure the results can be validated.

Golfers are the driving force behind the project. As golfers demand faster, more uniform

greens, the existing varieties of bermudagrass cultivars for greens (Tifdwarf and Tifgreen) are becoming less acceptable. These two varieties were developed in the 1950s and 60s when golfers were happy with higher mowing heights.

Researchers are studying several new varieties of new dwarf bermudagrass hybrids that spread vigorously with little vertical leaf growth. All three varieties originated from Tifgreen. FloraDwarf and

Champion are both fine-textured mutations found on existing Tifdwarf greens. FloraDwarf was selected from a green in Hawaii and Champion was discovered in Texas. MS-Supreme was found as a fine-textured mutation on a Tifgreen (328) green in Mississippi. TifEagle is unique in that it is a mutation that was induced by gamma radiation from Tifway II, a common fairway turfgrass.

The existing green was being renovated as of mid-July. Basamid soil fumigant, donated by BASF, was used to kill the existing bermudagrass. The top six inches of greens mix were removed, and replaced by a mix from Golf Agronomic Supply and Handling. The new varieties will be planted in vertical strips later this summer, in equal amounts on the same date, and will receive

identical treatment. Aerification and vertical mowing will be done separately to reduce the risk of cross contamination. The project will officially run three years from the date of grassing.

The green will be mowed at about 1/8-inch, the preferred height for these "ultradwarfs."

Light, vertical mowing, and light, frequent topdressing will control thatch.

USGA Regional Director John Foy says this is an exciting time, but he urges caution.

"They are still unproven, and we must exercise caution to determine which ones are best suited for each location," says Foy. "It is side-by-side comparisons in a controlled test area, such as this, that will help determine that."

"TifEagle will require more thatch control than Tifdwarf to produce quality turf," adds the USDA's Dr. Wayne Hanna, developer of TifEagle. "However, with proper management, it will produce better quality and more dense turf at 1/8 inch than Tifdwarf."

"The test plots are going to be extremely valuable for our area," says Rick Tatum, superintendent of The Forest Country Club, Fort Myers.

"These new varieties are originating from areas all over the country, and by having them side by side in our climate, we will be able to determine which ones are best for our conditions."

Darren J. Davis is superintendent at the Olde Florida Golf Club, Naples, Fla. LM

Testing the 'ultradwarfs' for modern golf greens



Darren J. Davis

DARREN J. DAVIS
Guest Columnist



Each one of Prestonwood's superintendents and maintenance supervisors had a hand in fine-tuning the Club's new maintenance building.

A 'championship' maintenance facility

Prestonwood Country Club near Raleigh, NC, is one of the Nike Tour stops, but when it built its new maintenance building, it was the members it needed to please.

By RON HALL/Managing Editor

It's about 3 p.m. on a steamy Carolina afternoon. Laborers dressed in work boots, blue work pants and short-sleeve shirts swarm around compact tractors and large fairway mowers.

Some are refueling their machines. Several are blowing dirt and debris from them with air hoses that they pull down from overhead reels. Others are washing equipment. Each unit is readied for tomorrow's jobs. Then, the machinery is parked inside

the adjoining building. This maintenance program is truly a *program*.

Its heart is its maintenance building, and that heart has to be both big and efficient when that program is responsible for 54 holes as it is at Prestonwood Country Club in Cary, NC.

Indeed, just about every important function or decision related to golf course maintenance at Prestonwood CC radiates from the low-profile, 23,250-square-foot building.

The two-year-old maintenance building here is more than concrete block and steel, copper wires and plumbing. It's the hub of three 18-hole golf courses that, themselves, are surrounded by new, upscale residential neighborhoods. That's because the sale of homes and building lots drive Prestonwood CC development. The attraction, of course, is the golf and related recreational and social amenities at the Club. It's probably the largest private country club in North Carolina.

Hot economy spurs boom

There is no end in sight to development in and around Prestonwood CC. Nearby Research Triangle Park's concentration of high-tech industries is transforming Cary and other once-tiny communities surrounding Raleigh and Durham. Nobody knows when construction will stop. Or slow. Professional people are flowing into central Carolina to snatch up high-paying jobs. Many are eager to play year-round golf too.

"This is home to most of us. It seems like we spend more time here than we do at home," says John Hilton. He's referring to Prestonwood's maintenance building. He's head superintendent at Prestonwood CC, and he jokingly refers to himself as "the grandfather" of the staff.

While most golf or country clubs can't afford the maintenance facility's price tag, almost all of them can learn something from the cooperative effort that went into designing and building the facility.

Memories of dirt floor, no room

In a sense, the building reflects the strides that golf course maintenance has taken in the 30-plus years since Hilton started his career in golf.

"I can't help but remember the first building I ever worked with. It was open on two sides, had a dirt floor and was about 40 feet long and 10 feet wide," says Hilton, a genuinely pleasant man who sees his role at Prestonwood as contributing the practical experience he's gained over the years while fostering a spirit of "family" among the 66 fulltime golf maintenance employees.

It wasn't that long ago that Prestonwood CC itself was working out of a building that never really met its needs either. Not from the beginning. Not from 1986 when the initial developer of the country club bought 1200 acres of mostly farmland, and 1 1/2 years into the project, hired veteran superintendent Hilton to team with Ron Gilmore, director of golf course operations, to finish off 27 holes of golf, plus a 4-hole, par-3 addition.

"The construction was difficult because it was being done in a flood plain. It was kind of a tough project to do," recalls Hilton. Creeks criss-cross the property. Sustained rains make them overflow their banks. (Hilton estimates the 54 holes are now traversed by 17 to 20 miles of drainage.)

Prestonwood's first 9 holes opened in June 1988, the second in August 1988 and the third in September 1990. Since then, 9 holes have been added to each course, along with two practice greens (one of 23,000 sq. ft. and the other 11,500 sq. ft.), and a one-acre practice tee built to USGA greens specifications.

Early in construction Gilmore and Hilton started building the management team: Robert Coiley, superintendent of the Fairways Course; Bob House, Highlands Course superintendent; Jon Allen, superintendent for the Meadows Course; Christopher W. Griffith, Irrigation Superintendent.

In 1991 Prestonwood CC took a huge step forward when James Goodnight, Ph.D., bought the country club and dou-

bled the size of the original development. Dr. Goodnight owns SAS Corporation, a NC-based, global software company.

"It was Dr. Goodnight's intention to improve it, expand it and make it bigger and better," explains Gilmore. He did. But, golf course maintenance struggled to keep up working out of the 20-by-100 foot maintenance building.

"You really couldn't put anything inside of it," recalls Gilmore who, at one time, tried to maintain 49 holes of golf out of the 2,000-square-foot building. (Later a 20-by-40 foot mechanic's shop was added.) Equipment sat outside. Chemicals were stored in a vacant house on the other side of the development. They had to be brought to the shop to be mixed.

Getting started

By 1994 it was evident that Prestonwood needed a bigger and better maintenance facility to continue delivering championship-caliber conditions to members.

"Our members pay a lot of money to belong to the club and play golf. We recognize that they deserve a lot for it," says Gilmore.

Final approvals by General Manager Don Thomas and Dr. Goodnight allowed the Bobbitt Construction Company to begin work on a new maintenance building in October 1994. However, Goodnight and Thomas insisted that:

- ▶ there be a single maintenance building,
- ▶ it be low-profile and unobtrusive,

Room to move

The new maintenance building at Prestonwood is made of concrete block with steel studs. The interior is finished in fire-proof sheetrock. It's 310-by-75 feet (23,250 square feet) and contains:

- ▶ offices for the superintendents and two receptionists,
- ▶ a five-bay maintenance and equipment storage area;
- ▶ a chemical storage room with recessed concrete floor;
- ▶ a fertilizer storage room;
- ▶ a wood working and signage shop;



Eastern bluebirds thrive at Prestonwood CC thanks to nesting houses built in the wood shop by Norman Banks, Ph.D., a retired nuclear scientist and longtime club member.

▶ it be landscaped so that surrounding home owners don't resent living near it. (A task performed by former landscape superintendent Bill Mason, and maintained by current superintendent Kurt Nitschke.)

"Once construction started we all felt like this building was 'my' building. We all volunteered information and requests. Everybody had a hand in it," says Hilton. He insists that the team approach led to many improvements in the original design.

The one thing that everybody agreed upon is that the facility had to go beyond

- ▶ an employee lounge with full kitchen;
- ▶ an equipment repair shop with grinding room;
- ▶ a set up room with ice maker and washer and dryer. There's also a covered wash pad adjacent to the building.

The building also houses a central controlled computerized irrigation system for all 54 holes and surrounding landscape totalling 55 satellite field controllers. This Toro Network LTC system is maintained by Christopher Griffith, irrigation superintendent. □

RH



Equipment lift is a great time and labor saver, say Prestonwood mechanics.

existing statutes, including the pouring of the 5-inch concrete pad upon which the building rests—a single pour to avoid joints and seams. Then there's another 1½ acres of concrete surrounding the building with reinforced fiber mesh for added strength.

Liquid storage a priority

"All areas in this building are of great concern to us, but there are three areas in particular that we wanted to take extra care with," says Hilton. They are: chemical

storage, the wash pad, and the fuel system.

"The fuel system has made my life a lot nicer," claims Joe Seagroves, equipment superintendent and one of four equipment mechanics. He says the ignition key of each piece of equipment is coded so that the "Fuel Master" system records the amount of fuel each unit uses and how many miles of hours are on it. The system provides an accurate fuel inventory, prevents operators from putting the wrong fuel in their vehi-

cles, and aids in tracking PM.

Not that everything is rosy in the mechanics' lives in spite of working in a new building and with practically new mowers and tractors.

Since all the equipment is about the same age (finishing the first year of a three-year John Deere lease), routine maintenance on over 100 units all happens about the same time. "In a way, it's kind of a maintenance nightmare," admits Seagrove.

Nor, did everything associated with the maintenance building turn out perfect. For instance, nearby homeowners complained about the night lights at the facility—too bright. "We had to go to a different type of light," says Hilton.

But these are minor glitches, and Hilton says he and his team of superintendents and their crews can maintain Prestonwood's 54-holes more efficiently and, ultimately, to a higher-quality level because of the state-of-art facilities.

The superintendents and mechanics that use the building daily come up with new suggestions to make the facility more efficient and safer.

"We stress safety and sanitation here, and try to put things in place that allows us to have those things," says Hilton. "Everybody is free to put their ideas on the table. It's a real good environment here." □



Workers try to keep everything in its place in the maintenance building.



Equipment Supervisor Joe Seagroves (left), Superintendent John Hinkle (center), and Ron Gilmore, director of golf course operations, have room to work efficiently.



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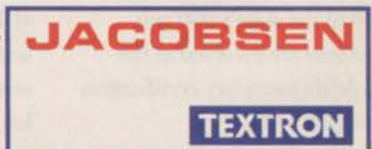
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Circle No. 131 on Reader Inquiry Card

Students kickstart sanctuary program

Innovative Texas A&M program can put superintendents on the road to Audubon Wildlife Sanctuary certification.

Many golf courses throughout North America are attaining certification under the USGA/Audubon Society Cooperative Sanctuary Program.

When they become certified, they join select company.

As of late spring, only 95 superintendents had completed the strenuous six-part program, says Marla Briggs, an ecologist with Audubon. The program has been in existence since 1991. About 2,000 golf courses in the U.S. and Canada have paid a \$100 membership fee as the first step in qualifying for the wildlife sanctuary designation.

One of the hot spots for the program is Texas where some 70 of the state's 900 golf courses are involved in the wildlife sanctuary certification process.

"It's the right thing to do," says Charles Joachim, superintendent at Houston's Champions Country Club, believes the program is "the right thing to



Seventy of the 900 golf courses in Texas are in the Audubon certification program.

do." His course was built in the late 1950s, after it was literally cleared of its trees, and "civilized," so to speak.

"Now we *know* we're in the city, and we have gone 180 degrees," Joachim says. "We're trying to make it be more like it was in the natural setting."

Helping out

In Texas, turfgrass students at Texas A&M University are teaming with turfgrass researcher Dr. Richard White to help superintendents in their initial steps toward certification. The group offers to conduct surveys to document wildlife and plant species that are present on participating

courses as they begin the road to sanctuary status.

The service is offered at-cost, but donations are appreciated, says White. "The students know this is important for the environment," he explains. "They see the golf course as a whole—not just the turf—and start thinking about ways to make it better. They get to begin applying principles they are learning in class."

White says that other turfgrass schools may want to consider starting similar services. "It's not as difficult as it may seem. It's something that would fit in many university wildlife/turf programs."


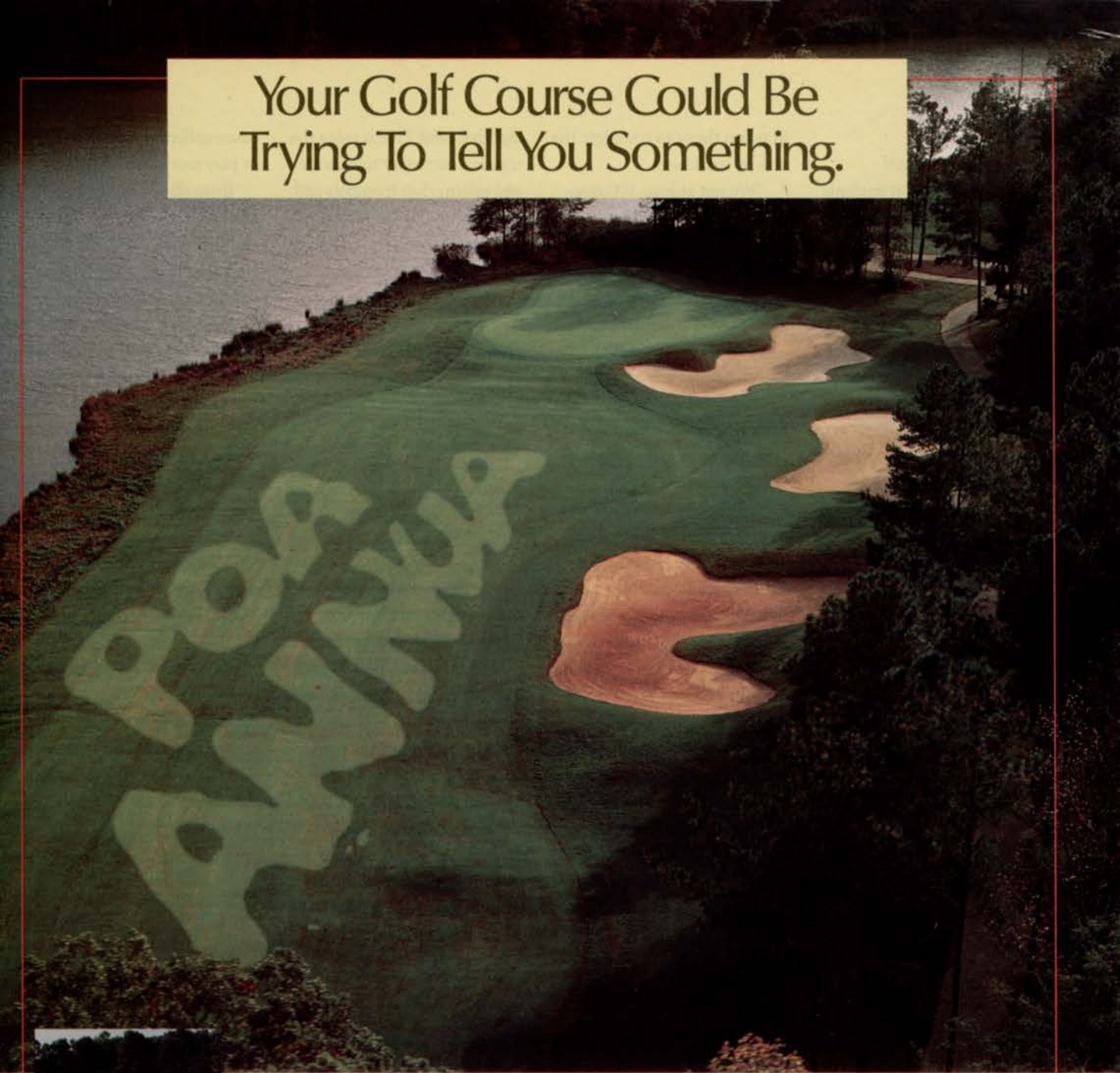
Adds Audubon's Marla Briggs, "We've talked to some other university's about this, but Texas A&M has been the leader so far."

This initial involvement by the Texas A&M Turf Club can be a great service to superintendents.

"The golf course superintendent wears a lot of hats," says White. "The students can supply some of the expertise that the superintendent might not have." When an unfamiliar plant or animal is located the students can bring it back to campus and do the legwork to get it identified, White says.

cont. on page 8G

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Circle No. 103 on Reader Inquiry Card

cont. from page 6G

"Working with golf courses—where most students hope to land jobs after graduation—is an excellent teaching tool."

Teeing off

The Turf Club students begin the process by dividing into teams for photography, property/adjoining land use, plant inventory and superintendent information. By working

in teams they can complete the task by sundown.

"We put at least 100 man-hours in during one day," White reports. "That's something a golf course superintendent would find difficult to do given time commitments."

Joachim agrees, "I gave the students some pointers on where to find wildlife and native plants, but I would not have had time to do it myself."

On the green

Another environmental success story is unfolding at Bent Tree Country Club in Dallas. When Keith Ihms took over as superintendent there he made the sanctuary certification one of his priorities. He said having the students available to do the initial resource inventory allowed him to concentrate on the other duties in his new position.

"Some people have the impression that we (at golf courses) spray with a lot of pesticides and waste water, but we are doing what we can to change that," says Ihms. He

says that Bent Tree is using the resource inventory to educate and inform club members and the surrounding community about wildlife on the course.

This project has increased the students' awareness of environmental concerns, says Dr. Richard White.

He's also looking into partnering with a local private school to build nesting boxes for the different types of birds that live on and around the golf course.

White points out that an open-door policy for wildlife has some drawbacks too, things like bird droppings, damage done to turf and ornamentals by large mammals, or the establishment of natural habitats in unsuitable locations that will

cause golfers to lose more balls or play more slowly.

Ihms agrees, but he says Bent Tree can learn to work through these problems. For instance, he contracts with an experienced trapper to humanely catch problem animals and relocate them on neighboring ranches. Recently, in fact, personnel at the course rescued some baby beavers orphaned because of unusually heavy rains. They ended up in an animal rehabilitation center to be nursed back to health.

That's a great learning experience, says White, as is participation in the sanctuary program in general.

"The exposure is great. This project has increased the students' awareness of environmental concerns and is something they will carry with them through their careers," says White. □

Audubon in review

The wildlife sanctuary certification program begins with the resource inventory. From that, the Audubon Society of New York writes a report on environmental planning specific to the particular golf course. Next, a workbook is given to the course, with five areas of concentration:

- ▶ water quality management
- ▶ water conservation
- ▶ integrated pest management
- ▶ wildlife and habitat management
- ▶ outreach and education.

Full certification may take one to three years, depending on the environmental condition of the golf course when it begins, says Marla Briggs.

"A golf course can do all five at once, or one or two at a time." "When they finish the workbook, we review and, if all is satisfactory, accept it for full certification.



Keith Ihms, superintendent at Bent Tree CC in Dallas said students' help with the initial resource inventory of the Audubon wildlife sanctuary program allowed him to concentrate on his other duties.



GRAND TRAVERSE growing strong

Two hotels, multiple condo units, two golf courses, and two more courses being built, all make it essential that the GTR management team and staff be on the same page and ready to go.

by TERRY MCIVER, Editor-in-chief

PHOTOS BY JOHN PAYNE

Grand Traverse Resort is the Midwest's largest full-service, year-round resort and conference center.

Located at the 1400-acre Grand Traverse Resort Village, in the northwest corner of Michigan's Lower Peninsula, it has been rated among the top 20 mainland resorts and top 50 travel destinations in the world.

Landscape management responsibilities include the grounds around the Tower Hotel and the smaller Resort Hotel; 236 condominiums; and the two Audubon Cooperative Sanctuary championship golf courses. The Bear Course was designed by Jack Nicklaus. Spruce Run was designed by Bill Newcomb.

A Gary Player signature course ('Northern Knight') is expected to open in 1998. Another, Lee Trevino signature course has yet to be named, and is planned for a 2000 tee time.

Everybody on the same page

Mike Meindertsmas, director of golf at the Resort, is into the people and business management side of things.

"I manage our superintendents and assistants and golf professionals, and even our construction, so my success rests squarely on the shoulders of the people who work with me.

"Being involved with all the aspects of golf operations is a real benefit," explains Meindertsmas. "It's a little bit atypical to have a director of golf who oversees golf maintenance, golf pro shop operations and golf development operations, but it makes all the sense in the world. At times, at some courses there can be a polarity between maintenance and the professional staff, whereas having one person lead the charge for both entities gets you away from that 'early tee time you didn't know about', or 'why are they aerifying today'?"

"The communication systems are there so that everybody knows what everybody's doing. There's no intentional or unintentional surprises."

Many equipment colors

Meindertsmas is not a brand loyal equipment buyer.

"When we buy equipment, we buy the piece of equipment that's going to work best for our situation," he explains. "Some

▲ Fairways at the Bear Course have ample landing areas, but it takes a precise approach to avoid mounds, bunkers and ponds.

of it happens to be red, some of it happens to be green, some of it happens to be orange, some of it happens to be a different shade of green. That's the most logical way to do it, in my opinion. The maintenance of the grounds is diverse enough to warrant different types of equipment."

New courses going in

James Bluck II has managed Spruce Run since April. Prior to that time, he was assistant at The Bear.

Bluck coordinated the resort's certification efforts for the Audubon Cooperative program. With those duties completed, his attention is focused elsewhere.

"We're involved mainly with the construction of the new golf courses going in," says Bluck. "We have four or five holes going through the existing course, which keeps us quite busy. We're losing one hole and having to use a practice par 3 until it gets replaced, and we're building different sets of tees to direct players away from construction.

cont. on page 12G



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cont. from page 9G

"We're building an additional pond and drainage through to the clubhouse parking lot. A lot of the drainage goes through Spruce Run, so we've put an additional 100 feet or so on the pond, and two foot underground piping for drainage."

Bunkers a challenge

Doug Kendziorski has been superintendent of the Bear Course for three years, during which time he's seen the need for changes in bunker design. The high bunker faces are a Nicklaus trademark, but they're tough to tend, and are trouble for guests.

"Golfers have torn chunks of turf out as they climb out of the bunkers. We've been going around and fixing them as we go this summer. We want to bring that edging down to the very base of the bunker. We'll pull the sand down, put in new edging, add topsoil to it, and sod it. We've done it extensively at Spruce Run for the past three or four years. They're so much easier to maintain if they're flat-bottomed bunkers.

"Taking some trees out where we can get better morning sun has helped greatly," says Kendziorski. "I can't stress enough the importance of morning sun. Number 3 is probably the healthiest it's been in five years because we removed 10 or 12 trees."

Wetting agents work

Both golf course crews are using wetting agents again, with good results.

"We've had great success this year, versus the past three or four years when we

got off the wetting agent program," says Kendziorski. "This year we jumped back on the program, and started out with one of the new generation of wetting agents (Primer 604, from Aquatrols).

"The wetting agent really makes a difference in the man-hours we have to spend maintaining the hot spots on the greens. On the tees we probably use 25 percent less water, or close to it. On greens, we probably use 10-15 percent less."

Kendziorski is committed to giving golfers the best course conditions possible.

"There's nothing the golfers like more than having a golf course that's true from green to green, where the bunkers are raked and level, trees are nicely trimmed and everything's in place," he says.

"And it really doesn't take a lot more time to train someone to do the job right every time."

Lots of work needs good people

As superintendent of grounds, John Meyer keeps the hotel and condo properties in shape, which he claims is a simple task compared to finding enough good



Mike Meindertma, director of golf at Grand Traverse Resort, knows the environmental and financial concerns connected to product applications.

workers.

"The easy part of the job is mowing the grass, pruning the bushes and planting the flowers," says Meyer. "The hard part is finding qualified employees in sufficient numbers when you need them."

Meyer advertises in the local paper and by referrals.

"The grass doesn't stop growing in August," says Meyer, "and I need people to work up until November 15, to help put up Christmas lights. I have probably 600 man-hours in Christmas decoration work."

Meyer's 20 employees manage flowers, trees and shrubs. They fertilize the grounds, install irrigation; mow and mulch; service the interior plantscapes of the hotels; conduct spring and fall cleanups and apply control products. In winter comes the snow-related work.

The impression one gets after visiting the Grand Traverse Resort is that it's staffed with a dedicated team of people who are hands-on, people-oriented and friendly.

And, they are clearly tuned in to customer service.

"Everybody's got the same philosophy," says Bluck. "Quality comes first. Concentrate on guest service, have as nice a golf course as you can." □



Grand Traverse Resort has four silver medals from *Golf Magazine* in the golf resort category.

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Winter kill linked to carbohydrate levels

by BILL KNOOP, Ph.D.

Now that the hottest days of summer are nearly over, it might be time, at least for those in the South, to start thinking about getting their warm-season turfgrasses through the winter. Fall management programs have a great deal to do with winter survival.

When a warm-season turfgrass dies sometime during the dormant months, the term "winter kill" is used. The term is not easy to define, and there are many points to consider. The best way to understand "winter kill" is to understand how the system works under ideal conditions.

Carbohydrate deficiency

In the fall after the first cool days, plant growth significantly slows down. The plant is still green and is capable of manufacturing carbohydrates. When plant growth is high, the demand for these carbohydrates is very high, but in the fall the carbohydrate supply exceeds the demand so carbohydrates

are available for storage. This can be critical. The warm-season turfgrass plant must store enough carbohydrates during the fall to get it through the winter. Remember the dormant plant is not dead, but very much alive, and uses its carbohydrate reserve at a low rate. How long the plant can stay dormant has a lot to do with the stored carbohydrates.

In spring, the plant must have enough carbohydrates to grow a new set of leaves. If winter has been exceptionally long, and the spring is then cool, the plant's carbohydrates may be fully depleted before it greens up. This is called "winter kill."

This may be the case when bermuda greens are over-seeded and over-seeding is allowed to remain too long. Thick over-seeding may tend to help keep

the green cool. A slightly different form of winter kill may take place if the plant greens up in the spring, but is "killed back" by a period of below-freezing weather. If this happens once or twice, it's usually not serious but if the green up/freeze back cycle is too frequent, the plant may run out of carbohydrates and die. This may be the most common form of winter kill. The plant uses a high amount of its carbohydrate reserve to establish its leaf system. As soon as bermuda begins to green up, everything must be done to get rid of the overseeding.

Spring dead spot

The dormant plant may be attacked by a disease sometime during the dormant period. The best example is "spring dead spot" disease.

These are areas of grass that simply do not green up. The spots

may be from a few inches in size to more than a foot. It seems to be a random disease, mostly confined to the upper south. A turf area may have spring dead spot for a few years in a row and then never have it again.

Low temperature

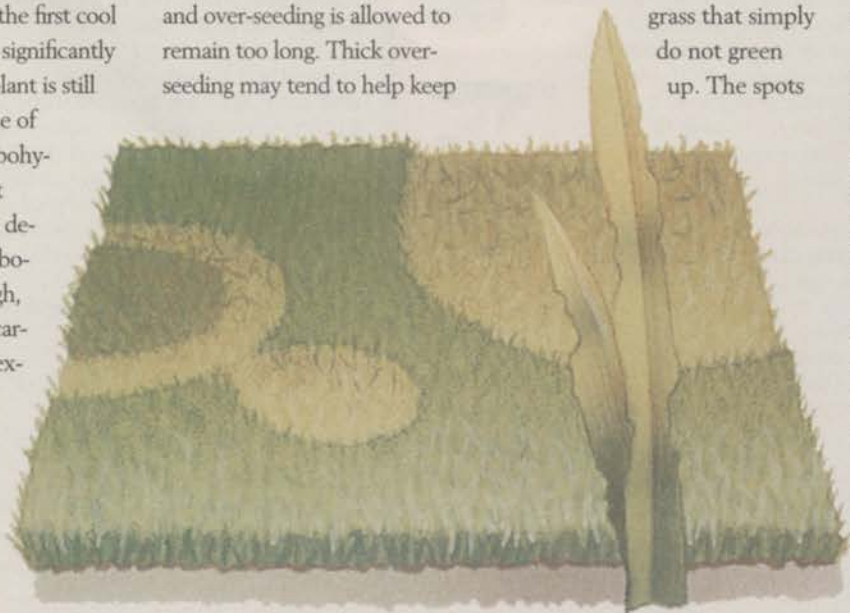
Direct low temperature is another form of winter kill. It may just get cold enough to kill a warm season turfgrass. It's hard to say just how cold it has to get before a warm-season turfgrass can be killed. A lot depends on how fast it got cold. A plant that is too dry or too wet may be more susceptible to low temperature injury.

Warm-season turfgrasses that do not survive their dormant period may not have died for just one reason. Most times, several factors may combine to cause the death of the plant.

Management factors have been found to contribute to winter kill. Turf on compacted soils tends to be more susceptible. Other factors: low mowing height and too much fertilizer (especially soluble nitrogen).

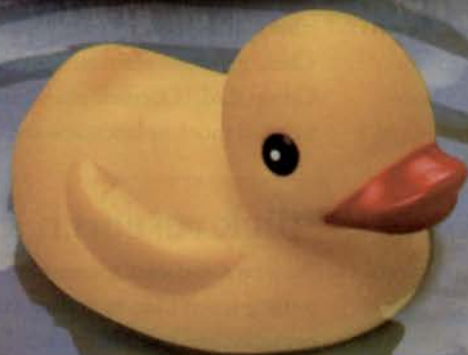
Sensible management is the best way to prevent problems, including winter kill, but sometimes it just gets so cold that nothing could have been done to prevent it. **LM**

Knoop is LANDSCAPE MANAGEMENT'S technical editor.



Spring dead spot may appear for a few years, then never again.

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Circle No. 117 on Reader Inquiry Card

IA supports Illinois contractor case

The Irrigation Association reports it will start a matching fund of \$7000 to help the Illinois Turf Irrigation Association pay legal fees in a case currently before the Illinois Supreme Court.

At issue is the right of irrigation contractors to assemble irrigation components downstream of backflow prevention devices. The issue centers around where a plumbing system starts and where it ends. In the past, the backflow device was considered the point where the plumbing system ends. However, a Chicago irrigation contractor was cited in 1995 for assembling an irrigation system downstream of a

backflow device, which is legal according to common industry practices.

Contractors say the Illinois Health Department does not require licensed plumbers to install overhead fire sprinklers, water conditioners and softeners and agricultural irrigation.

"If the Supreme Court does not correct this mistake, then our industry will be prevented from pursuing our trade and the price of irrigation system installation in the state will rise dramatically," says Michael Clark, irrigation manager for the Brickman Group, Ltd. "Licensed plumbers charge twice as much as landscape contractors to

install turf irrigation systems. Furthermore, the error might set a precedent for other states to follow. That would be devastating to our industry."

Dan Cassidy, president of the Illinois Turf Irrigation Association, says it takes five years of apprenticeship to become a licensed plumber, and there is only one question on the plumbing exam about irrigation systems.

Cassidy says the backflow device manufacturers contributed to the heightened fear of backflow potential in the state health department, which led to this controversy. □

GCSAA/USGA/NTEP pick research greens

The GCSAA and USGA and National Turfgrass Evaluation Program have begun an on-site research project to evaluate new and widely-used cultivars of creeping bentgrass and bermudagrass. Trials will be conducted on golf courses where the cultivars can be maintained at the exacting standards of today's golfer.

"On-sited testing of turfgrass cultivars is not a new concept," reminds Dr. Bob Shearman, NTEP executive director,

"however, the joint sponsorship of on-site putting green trials to evaluate creeping bentgrass and bermudagrass cultivars by [the three associations] is new. That's why we like to refer to this program as 'back to the future,'" says Shearman.

Golf course superintendents have been asking for some time to have information that bridged the gap between small-plot university trials and their end-use needs. This program will do just that and will be

NEW OTF ADDRESS

The Ohio Turfgrass Foundation has a new address: P.O. Box 340546, Columbus, Ohio 43234; 614/760-5442; fax: 614/760-5431.

based on sound research approaches," continues Shearman. "It really brings the industry together in a cooperative effort to meet its informational needs."

Research sites include: CC of Green Valley, Green Valley, Ariz.; Westwood CC, Vienna, Va.; Westchester CC, Rye, N.Y.; The Missouri Bluffs, St. Charles, Mo.; The Jupiter Island Club, Hobe Sound, Fla.; The Country Club of Birmingham, Birmingham, Ala.; SCGA Members Club, Murrieta, Calif.; Purdue University North, Purdue Univ. West, Ind; North Shore Country Club, Glenview, Ill.; Lakeside Country Club, Houston, Texas; Fox Hollow at Lakewood, Lakewood, Colo.; Crystal Springs Golf Course, Burlingame, Calif.; Country Club of Mobile, Mobile, Ala.; Boone Links/Lassing Pointe Golf Course, Florence, Ky.; Bent Tree Country Club, Dallas, Texas.

Seed company sponsors are: Tee-2-Green Corp; Lofts Seed, Inc.; E.F. Burlingame; Seed Research of Oregon; Zajac Performance Seeds; Pickseed West; Jacklin Seed Co.; Turf Merchants, Inc.; Lesco; Sunbelt Seeds; International Seeds, Inc.; Seeds West, Inc.; Cascade International Seed Co.; Thomas Bros. Grass Co. □



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 29 30 **Government Official**- Government Commissioner, Agent, Other Government Official
 30 40 **Specialist**- Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
 31 Other Titled and Non-Titled personnel (please specify) _____

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 33 C Tree Care
 34 D Turf Aeration
 35 E Irrigation Services
 36 F Turf Fertilization
 37 G Turf Disease Control
 38 H Ornamental Care
 39 I Landscape/Golf Design
 40 J Turf Weed Control
 41 K Paving, Deck & Patio Installation
 42 L Pond/Lake Care
 43 M Landscape Installation
 44 N Snow Removal
 45 O Other (please specify) _____

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 47 2 Blowers
 48 3 Chain Saws
 49 4 Chipper-Shredders
 50 5 De-icers
 51 6 Fertilizers
 52 7 Fungicides
 53 8 Herbicides
 54 9 Insecticides
 55 10 Line Trimmers
 56 11 Mowers (reel/rotary)
 57 12 Snow Removal Equipment
 58 13 Sprayers
 59 14 Spreaders
 60 15 Sweepers
 61 16 Tractors
 62 17 Truck Trailers/Attachments
 63 18 Trucks
 64 19 Turfseed
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108	126	144	162	180	198	216	234	252	270	288	306
109	127	145	163	181	199	217	235	253	271	289	307
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111	129	147	165	183	201	219	237	255	273	291	309
112	130	148	166	184	202	220	238	256	274	292	310
113	131	149	167	185	203	221	239	257	275	293	311
114	132	150	168	186	204	222	240	258	276	294	312
115	133	151	169	187	205	223	241	259	277	295	313
116	134	152	170	188	206	224	242	260	278	296	314
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117	135	153	171	189	207	225	243	261	279	297	315
118	136	154	172	190	208	226	244	262	280	298	316

Events

AUGUST

15-17: TAN-MISLARK Convention, Texas Assn. of Nurserymen, Dallas Convention Center; Patti Willey, (800) 880-0343.

21: Indiana State Lawn Care Association Field Day, Oak Hill Mansion and Northern Beach Park, Indianapolis, (317) 575-9010.

21-24: Associated Landscape Contractors of America, Sales Symposium Fairmont Hotel, Dallas, Texas. Contact: ALCA, (800) 395-2522.

27: Ohio Turfgrass Foundation Field Day, The

Ohio State University Turf Research Plots, Columbus, Ohio, (614) 760-5442.

27: Georgia Turfgrass Field Day, Georgia Experiment Station, Griffin, GA; contact Douglas Moody, (770) 975-4123.

28: Michigan State University Turfgrass Field Day, Hancock Turfgrass Research Center, MSU Campus, East Lansing, MI. Contact Kay Patrick (517) 321-1660.

SEPTEMBER

2-4: The Sports, Amenities and Landscaping Trades Exhibition, Royal

Windsor Racecourse, England; Andy Center +44 (0) 1932 564455. E-mail: indexh@compuserve.com.

4-5: Southwest Horticultural Trade Show, Phoenix Civic Plaza, Phoenix, AZ; Arizona Nursery Assoc., (602) 966-1610.

4-6: GrowTech, International Trade Exhibition and Conference on Horticulture, Miami Beach Convention Center, Miami Beach, FL; (617)-720-0656.

10-13: Florida Nursery Growers and Allied Trades Show, Orange County Convention Center, Orlando, Fla.; (407) 295-7994 or (800) 375-3642.

16-18: Virginia Turf and Landscape Field Days,

Virginia Tech Campus, Blacksburg, VA; contact David McKissack (540) 231-5897 or turf1@vt.edu.

17: LCA SuperShow, Howard County (Maryland) Fairgrounds; LCA; (301) 948-0810.

18: Mid-Atlantic Athletic Field Managers Field Day, MacGruder High School, Rockville, MD; (410) 290-5652.

24: Va. Tech. Hampton Roads Ag Research Field Day, Extension Center, Virginia Beach, VA; Dr. Bonnie Appleton, (757) 363-3906. **LM**



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people like. Like other organic mulches, it starts decomposing and turns itself into organic material which feeds the roots of the plants. There are some fungi that can form on the mulch, though, if it is left alone. A simple way to prevent this is to freshen your mulch (by raking it or redistributing it) about once a month.

► Pine or cypress bark mulch is a slower decomposing mulch than hardwood bark. They are popular to use as a cover-up, such as flanking a sidewalk up to a front door.

► Straw is most often used as a winter protection and as a summer mulch in fruit and vegetable planting. It may carry weed seeds, and it is flammable. Don't use hay.

► Stones, rocks or pebbles

have their place in mulching but usually in small amounts for color contrast or to highlight a certain area.

There are many other mulches such as black polyethylene, sawdust, and buckwheat hulls, that are used for specific plants and areas. But, keep in mind that whatever the mulch, two to three inches is enough, or the mulch will interfere with the root system's oxygen. Also, to prevent insect infestation, don't spread mulch right up to a house. Leave six to eight inches of bare dirt around the foundation.

One more thing to remember about mulch—if it's already there, and you're going to plant, rake it off. If the soil is poor and needs some organic matter, you can rototill old organic mulch into the soil, but don't use new. Otherwise, the mulch will use the needed nitrogen to decompose instead of leaving it for the plants.

You can get more information on mulch from your local extension office, or at Ohio State University's web site (<http://hortwww-2.ag.ohiostate.edu/hvp/HVP1.html>). **LM**

Mulch is a material, organic or inorganic, that's spread on the soil around and under plants. This is, admittedly, a broad definition, and makes for a lot of choices. All of the products have their pluses and minuses, so what it comes down to, in most cases, is what your customers want to see in their yards or gardens.

All mulches, from peat moss to rocks, do three basic things: hold soil temperature steady, reduce moisture loss, and help reduce weed growth. But mulch does these things in different ways. Here's a glimpse at some of the more popular mulches and their benefits:

► Peat moss is generally available and ideal for mulching evergreens and other plants that grow

best in acidic soil. It remains effective for one or two years, depending on the amount applied.

► Hardwood bark mulch is shredded hardwood, such as oak, and has a dark color many

Mulches: take your choice

by HEATHER FRANTOM, Ohio State University

Sprayer made for the "Gator"

John Deere offers a new 50-gallon sprayer designed for its Gator Utility Vehicle. The square, poly tank has a locking lid and air gap filler. Features include: heavy-duty skid assembly with straps and hose lock, a 3.5-hp B&S engine with manual start and a Hypro 4 roller pump. Jet agitation and 25 feet of 1/2-inch high-pressure hose with an aluminum trigger grip spray gun provide the power and tools required for optimum performance. The 50-gallon sprayer is also avail-



able with optional equipment including speed-0-meter, electronic speedometer/odometer/hour meter and digital readout of miles per hour or distance traveled per hour.

Circle No. 264

Unit removes dangerous infield ridge

Kromer now offers an economical pull-type groomer/liner/sprayer. It may be used as a groomer only, or as a groomer and line painter with the same attachments as used on the Kromer AFM. Features include a spring tooth harrow, leveling blade, and nylon broom to make infields safe for athletes because the unit eliminates the dangerous infield ridge that often develops. Line football and soccer fields quicker and easier while riding. Contact the Kromer Co. at 800/373-0037, or

Circle No. 266



Davey Tree offers line of premium tools

The Davey Tree Expert Company now offers Davey Yard and Garden Tools. The premium line of tools, being sold retail, come with a life-time limited warranty, gardening tip booklets provided with each sold item and an 800 number which connects customers to Davey's technical support center for answers to tree, shrub and lawn care questions.

"We've positioned Davey's Yard and Garden Tools as a premium line that independent lawn and garden product dealers can sell without worrying about seeing the same tools in a national discount chain or home center," said Gordon Ober, vice president. For more information about the new line of tools, contact Ober at 800/447-1667, ext. 7, or

Circle No. 265



> PRODUCT REVIEW

Grotech spreader for all seasons



Grotech's MPS-125 is a multi-purpose, multi-season spreader. Spread seed, fertilizer and granular chemicals on turf in season, then turn the MPS-125 to winter maintenance, spreading ice melt and sand on your parking areas when the weather turns cold. This spreader also

mounts on any tractor, front mower, utility vehicle, golf cart or truck.

The spinner height adjusts 24" vertically, on a 3-pt. hitch mount. The spreading pattern adjusts from 4 to 40 feet. The MPS has a 9 cu. ft./600 lb. capacity. A single lever joy stick allows the operator to control the spreading pattern from his/her

seat. Other features: thermoplastic hopper with stainless steel throat liner, enclosed 12V hi-torque motor mounted inside a sealed housing, stainless flow control gate, weather-proof electrical connector.

Call Grotech at 800/725-8377 and mention Landscape Management, or

Circle No. 267

Powerhead trims around sprinkler heads

Powerhead is a new cutting device for high speed trimming around irrigation sprinkler heads. It fits all power trimmers using just a bolt and washer. Once positioned over a sprinkler head, the grounds maintenance operator simply revs the

power trimmer motor, trimming the turf around the sprinkler head within 2 to 3 seconds.

The Powerhead trimming disk is a one-piece nylon unit with four

vertical cutting blades and 24 vanes that create a vacuum, pulling grass into the cutting blades helping to give a clean, precise cut. Powerhead is distributed by United Horticultural Supply which can be reached at 503/678-9000. Mention Landscape Management, or

Circle No. 268



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Turfco cuts tight circles

The Turfco Pro Lite Sod Cutter is powered by either a 5-hp Briggs & Stratton or Honda engine and will cut angle slot to install brick edging. Since there are only two controls, it is easy to operation. This unit will cut tight circles, even corners. It weighs just 170 pounds. Call Turfco and tell them you read this in Landscape Management, or

Circle No. 269



Sprinklers for large areas needing water

Rain Bird's new 70, 80E and 85E series of impact sprinklers are designed for large-area watering. Depending on the nozzle type, the 70CWH and 70CSPH "full circle" models can be adapted for a wide range of golf course irrigation settings.

The 80E "full circle" and 85E "part-circle" models are specially designed for operation in dirty water and windy conditions. The sprinklers are made of cast bronze and heavy brass for durability.



The full-circle, one-inch 70 series features a modified three-washer bearing assembly. Large nozzles and higher flow rates can be used to help ensure a large watering radius, such as on a driving range or wide fairway. A medium trajectory angle of 21 feet and non-clog straightening vanes in the body range tube help maximize distance of throw.

The 70CSPH has a rear spreader nozzle for close-in watering. A plugged spreader nozzle on the 70CWH creates low precipitation rates.

Engineered for high performance in dirty water and windy conditions, the 1.25-inch 80E and 85E series sprinklers can be used for a variety of field applications. The 80EHD-LA (full-circle) and 85EHD-LA (part-circle) "Tough Bird" models feature single nozzle construction, locking friction collars, heavy-duty trip components and a durable "H" bearing. A specially drilled low 17-foot trajectory and non-clog straightening vanes deliver reliable performance in high winds.

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The 330T features the Comfort-Flex op-

erator handles, fabricated from a high-tensile plastic. The handles flex under load to help absorb and dissipate shock and stress. The unit also features an enclosed spur gear transmission with an all-metal centrifugal clutch designed to slip upon normal overload or sudden impact with buried obstructions. Augers up to 16 inches



in diameter, in standard 3-foot effective digging length, are available with Pengo-type boring heads for use in a variety of unconsolidated and semi-consolidated earth formations.

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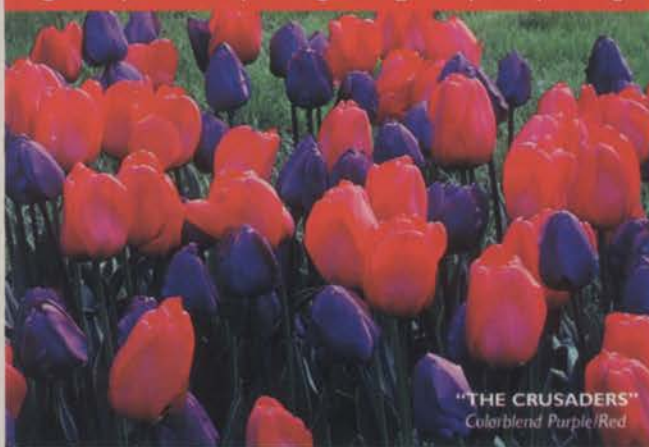
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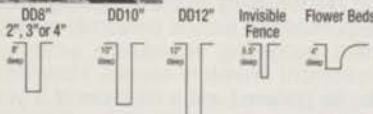


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LANDSCAPE DESIGNER WANTED Must have experience reading blue prints, drawing landscape designs, and measuring footage, knowledge of south Texas plants and degree preferred. Apply at Fox Tree & Landscape Nursery, 5049 La Costa, Corpus Christi, TX 78414, (512)992-6928, FAX: (512)991-7841. 8/97

LANDSCAPE MANAGER: Design, Build, Landscaping, Irrigation & Maintenance Company is looking for qualified person to do residential & commercial designs/sales & manage production & materials. Must be self-motivated & organized. Horticulture degree or equivalent experience plus 3-5 yrs. in sales & management. Send or fax resume, salary history & references to: W. W. Landscaping, 3078 W. Hayden Ave., Rathdrum, ID 83858 Fax: 208-762-0811. 8/79

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Grab Bag

Trees help reduce energy costs

Few people realize that trees can reduce home cooling bills by as much as 50 percent, write our friends at Laflamme Services, Inc., Bridgeport, Ct. Planting trees to shade the roof, walls and windows of a home or office will reduce energy costs, even if only 20 percent of the roof is shaded for a day. The amount of shade provided by a tree depends largely upon the type of tree used. Deciduous trees are a good choice: they cool a home in summer and warm it in winter. In summer, deciduous trees block the sun and cool anything underneath. In winter, trees help block the wind while allowing the sun to shine through their bare branches to provide warming sunlight for home or office.

AAN now ANLA

The American Association of Nurserymen is now to be known as the American Nursery and Landscape Association. The change follows a two-year study by members and leaders, says Carl Meyer, president. "Our commitment to excellence in serving [ANLA members] has not changed," says Meyer, who adds that leadership will deliver "unique knowledge" to members.

LM editor, wife blessed in marriage

June 21 was not only the first day of summer, it was also a most special day for LANDSCAPE MANAGEMENT editor, Terence 'Terry' McIver, who married Terrie Lynn Banar of Berea, Ohio. The service was held at Grace Christian & Missionary Alliance Church in Middleburg Hts., Ohio. The weather was everything a green industry editor could pray for: sunny and warm, and not a cloud in the sky. McIver says a heartfelt 'thank you' to his green industry friends who have expressed best wishes to the happy couple!

PHOTO BY RON HALL



Compatibility counts

"We urge crew leaders to recruit their help, someone they will work well together with, and it's helped. They're on fire to find somebody good to work with. Usually it's someone they get along with already. So at supervisor meetings we don't hear a whole lot about incompatibility of work styles."

CULLEN WALKER, PRESIDENT, WORKAHOLICS LANDSCAPE MANAGEMENT, NAPLES, FLA.

Moderation in management

"The healthiest grass plant or tree or shrub is the one that has just enough water, just enough fertilizer and is sprayed with pesticide only when it is absolutely necessary. Sometimes less is better."

MKE MEINDERTSMA, DIRECTOR OF GOLF, GRAND TRAVERSE RESORT, ACME, MICH.

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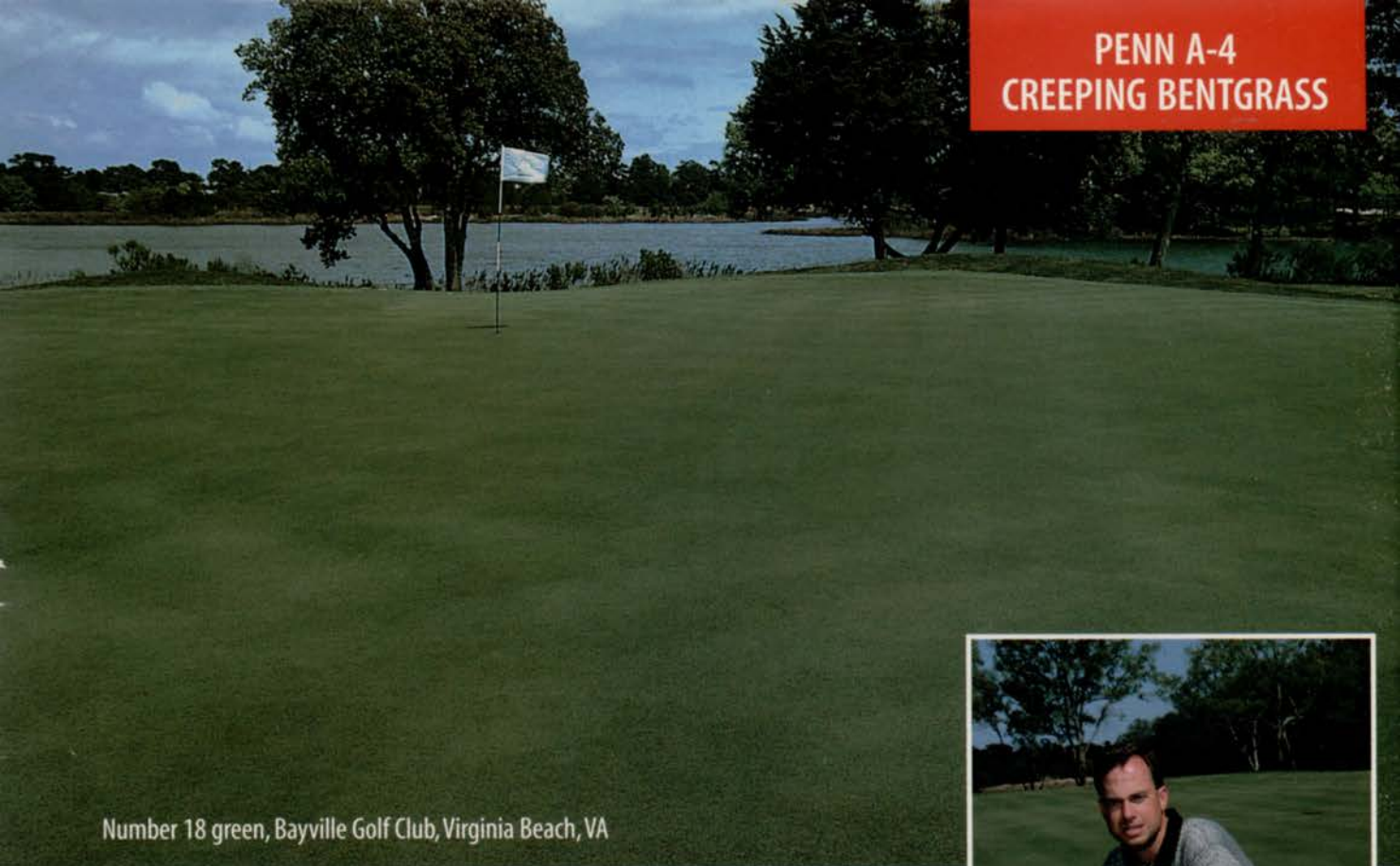
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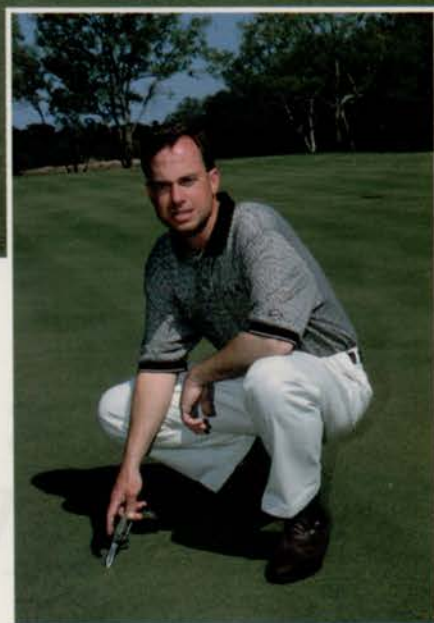
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J. Cutler Robinson, Jr., CGCS
Bayville Golf Club, Virginia Beach, VA

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