

David Kroll, CGCS, inspects one of 18 PennLinks greens at Wilmington CC, Delaware

PennLinks creeping bentgrass working wonders at Wilmington

New bentgrass variety provides a truer putting surface at Wilmington CC.

When David Kroll, CGCS, was dealt the problem of bentgrass

This Wilmington green was seeded in early '60s with poor quality seed fraudulently labeled Penncross. All the greens deteriorated to the point that they had to be entirely renovated.



deterioration on the greens of this prestigious country club, he called in the experts to help. The greens could not be salvaged, so they were treated with methyl bromide and completely re-greened.

Dr. Joe Duich, Penn State University, suggested seeding with a bentgrass coded PSU 126.

Two and a half years later, the greens look great and with PennLinks' more upright growth pattern, putt like a dream. That experimental variety is now named PENNLINKS, and is available in limited quantities.

Available in limited supply this fall in the re-usable 6 gallon "PENN PAIL."

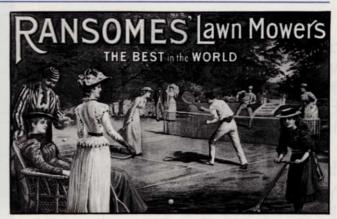


PennLinks' Oregon certified blue tags qualify for cash awards to qualifying turf organizations for turf research. Call our toll-free number for details.

Marketed by **TEE-2-GREEN Corp.**, PO Box 250 Hubbard, OR 97032 1-**800-547-0255** TWX **510-590-0957**

The Magazine of LANDSCAPE MANAGEMENT





40

40 COVER STORY: IN THE GREEN

For the second year in a row, WEEDS TREES & TURF tackles putting together a list of the 50 largest landscape contracting companies in the country.

46 All-Pro Landscapers

51 Best in the Northwest

50 Landscaping for the Rich and Famous

55 Shooting the Moon 60 The Graduate

64 THE EQUIPMENT EVOLUTION

WEEDS TREES & TURF marks its 25th birthday this year. Last month, we looked at the progress of the chemical industry since 1962; this month, it's mowers.

70 PRE-EMERGENCE WEED CONTROL GUIDE

Dr. Robert Shearman and Dr. Tim Murphy examine pre-emergence weed control tactics on cool-season and warm-season grasses, respectively.

80 LANDSCAPE EXPO: YEAR TWO

The Landscape Expo has seen exceptional growth in just one year, making it one of the largest industry trade shows. This month, a complete rundown of educational sessions and exhibitors.

88 YOU CAN PAY ME NOW ...

The old oil filter commercial was never more true. By spending a few dollars now on routine equipment maintenance, you won't have to pay a lot more later on repair.

92 TRAINING SYSTEMS

On-the-job training is the most common method of breaking in a new employee. But it may not be enough.

96 THE EMERALD NECKLACE

The 19,000 acres of Cleveland's Metroparks System provide a challenge even for 350 peak-season workers.

100 CLEANING MISS LIBERTY'S HOUSE

Landscape restoration on Liberty and Ellis islands in New York Harbor was not an easy assignment last year. But the National Park Service was up to the task.

DEPARTMENTS

- 4 NEWS/TRENDS
- 8 GREEN INDUSTRY NEWS

64

- **18 SHORT CUTS**
- 106 JOBTALK
- **108 PROBLEM SOLVERS**
- 110 LETTERS
- 114 PRODUCTS
- **124 EVENTS**
- 130 CLASSIFIED
- 135 AD INDEX
- 136 OUTLOOK



Cover photo of Northwest Landscape employees by Larry Kassell

WEEDS TREES & TURF (ISSN 0043-1753) is published monthly by Harcourt Brace Jovanovich Publications. Corporate and Editorial offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Advertising Offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130, 111 East Wacker Drive, Chicago, Illinois 60601 and 455 East Paces, Ferry Road, Suite 324, Atlanta, Georgia 30305. Accounting, Advertising Production and Circulation offices: 1 East First Street, Duluth, Minnesota 55802. Subscription rates: \$25 per year in the United States: \$35 per year in Canada. All other countries: \$70 per year. Single copies (pre-paid only): \$2.50 in the U.S.: \$4.50 in Canada; elsewhere \$8.00; add \$3.00 for shipping and handling per order. Second class postage paid at Duluth. Minnesota 55806 and additional mailing offices. Copyright: 1986 by Harcourt Brace Jovanovich, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher. writing from the publisher

POSTMASTER: Send address changes to WEEDS TREES & TURF, P.O. Box 6198, Duluth, Minnesota 55806-9898.

♥BPA ABP

YOU CAN'T MAINTAIN A CHAMPIONSHIP COURSE WITH AMATEUR EQUIPMENT.

Turf maintenance is a tough, allweather, full-time job. That's why so many of America's turf professionals are switching to the high-quality, low-maintenance HIJET® Multipurpose Utility Vehicles from Daihatsu.

HIJET delivers reliable turf-tough performance powered by a whisper-quiet, 3-cylinder, water-cooled engine. You'll enjoy the maneuverability of rack-and-pinion steering and a super-tight turning radius of only 121/2 feet!

The HIJET is so versatile, you'll be able to do more work with fewer vehicles and haul bigger payloads than your current

equipment can handle.

HIJET comes in four body types:
Cut-A-Way, Full Cab, Hydraulic Tipper
and Hydraulic Liftpick/Tipper. Steel doors
with roll-up windows, guard bars, heater/
defroster, turf or regular tires, and a restraint
cage are all available as either standard
or optional equipment depending on the
body type you select.

Discover the incredible HIJET for yourself. The coupon below will bring you all the

details. Or call 1-800-237-9185 (USA), 1-800-423-6824 (California).



Tell me more.

1611 11	ic illoi	.	
Name			
Title			
Company	/		9/10/100
Address_	The state of the s	and the property of the same	
Telephone	e ()		
☐ Turf/Grounds		□ Industrial	☐ Agricultural
Mail to:	Dept. C, Long Beach, CA 90813.		
	Designed exclusively for industrial, agricultural and turf maintenance applications. Not certified for on-the-road The HIJET is maintenance applications. Not certified for on-the-road		





NEWS/TRENDS

For sale: small businesses

A wave of small business sales marked the end of 1986. The Dec. 31 deadline for pre-tax-reform sales prompted a number of business to "dis-incorporate" themselves before the corporate gains tax rate jumped on Jan. 1.

Several larger public companies converted to master limited partnerships to beat the new maximum tax rate of 28 percent, which no longer includes the 60 percent capital gains exemption. The previous law taxed companies on only 40 percent of their capital gains. Therefore, a company in the 50 percent bracket paid 20 percent of income in taxes. These companies are now subject to the flat 28 percent rate.

The new rate marks the first time in decades that the individual's taxes will be lower than corporate, which is why companies are switching to limited partnerships. In this arrangement, profits and losses pass directly to the owners, avoiding the corporate income tax, and paying only the 28 percent top rate personal income tax on earnings: single taxation at lower rates.

U.S. companies attract foreign investors

■ Foreign companies have always shown interest in U.S. chemical companies, but never as much as has been shown recently. Since last summer, at least six sales of U.S. companies to foreign companies have occured. Two of the most recent are the Dutch conglomerate Unilever's \$3.1 billion purchase of Chesebrough-Ponds and West Germany's Hoechst AG's \$2.7 billion buyout of Celanese.

If pending acquisitions are completed, 20 percent of U.S. chemical interests will be foreign-owned. These include Rhone-Poulenc's recent purchases of Union Carbide's Agrichemical Division and a Monsanto plant. If the present trend continues, fluency in a foreign language may be a necessity.

Economist Ned Howenstine, of the U.S. Department of Commerce, predicted that new foreign investment in 1986 would surpass the 1981 peak. In the first nine months of 1986, Europe accounted for 22 of the 26 sales of chemical companies, Japan for two. Europe accounted for 24 chemical purchases in 1985, and 29 in 1984. More sales were expected before the end of 1986.

WT&T Editorial Staff









STAFF.

Jerry Roche, Cleveland Associate Editor Heide Aungst, Cleveland Assistant Editor Jeff Sobul, Cleveland Publisher Dick Gore, Atlanta Associate Publisher Ron Kempner, Atlanta Senior Vice President Tom Greney, Chicago Group Vice President Robert Earley, Cleveland **Production Manager** Carol Young, Duluth **Production Supervisor** Marilyn MacDonald, Duluth Graphic Design Jeff Elliott, Duluth **Graphic Coordinator** David Komitau, Cleveland Circulation Supervisor Gail Mantay, Duluth Directory Coordinator Michele Missinne, Duluth Reader Service Manager Gail Kessler, Duluth **Promotion Director** Linda Winick, Cleveland

OFFICES.

ATLANTA

455 East Paces Ferry Road Suite 324 Atlanta, GA 30305 (404) 233-1817

CLEVELAND 7500 Old Oak Boulevard Cleveland, OH 44130 Editorial: (216) 243-8100

CHICAGO 111 East Wacker Drive Chicago, IL 60601 (312) 938-2344

1333 N.W. Norcross Seattle, WA 98177 (206) 363-2864

120 West Second Street Duluth, MN 55802 (218) 723-9200

MARKETING REPRESENTATIVES

Dick Gore Atlanta (404) 233-1817 Ron Kempner Atlanta (404) 233-1817 Jon Miducki Cleveland (216) 243-8100 **Robert Mierow** Seattle (206) 363-2864

HARCOURT BRACE JOVANOVICH PUBLICATIONS

Robert L. Edgell, Chairman; Richard Moeller, President; Lars Fladmark, Executive Vice President; Arland Hirman, Treasurer; Thomas Greney, Senior Vice President; Ezra Pincus, Senior Vice President; Joe Bilderbach, Vice President; James Gherna, Vice President; George Glenn, Vice President; Harry Ramaley, Vice President.



Take Aim on Crabgrass and Goosegrass with



Acclaim®! 1EC Herbicide Brings High-Technology Down to Earth!

You've heard that Acclaim has had superior performance in turf research tests. Now try Acclaim for yourself!

Acclaim is the most exciting advancement in selective grassy weed control. It's everything you've ever wanted, and more...because Acclaim is unlike anything you've ever used.

New Chemistry for Superior Performance!

The revolutionary chemical, fenoxaprop-ethyl, gives Acclaim the power to translocate from the site of contact to the heart of weed growth – without the turf injury problems associated with other postemergence herbicides.

Acclaim also eliminates the problem of unsightly patches caused by dead weeds. When applied thoroughly, Acclaim will cause the weeds to turn pale yellow in 4-10 days. In 12-21 days, leaves turn red or purple. Then, the stems turn black as the entire



1EC HERBICIDE

weed decomposes, leaving nothing but green!

Acclaim! Lets You Reseed Fast!

Fescues and ryegrass can be overseeded immediately following Acclaim application. Bluegrass can be overseeded after 21 days. And mowing just 24-hours after Acclaim application won't reduce efficacy.

Acclaim! Fits Your Busy Schedule!

Acclaim goes right to work on grassy weeds from 3-leaves to 5-tillers in size, giving you the time you need to treat thoroughly. When applying Acclaim you can afford to be thorough, because you treat only where weeds appear. And chances are you'll need to do it only once.

Acclaim!, the Crabgrass and Goosegrass Specialist!

Whether you have fine or tall fescue, perennial ryegrass, or Kentucky bluegrass grown east of the Rocky Mountains, Acclaim lets you take aim on tough grassy weeds! With Acclaim, you can control crabgrass and goosegrass,

barnyardgrass, foxtail species, Panicum species, and johnsongrass...all with the same level of effectiveness.

Great Turf Deserves Acclaim!

As a professional, you take pride in having and maintaining lush green turf throughout the season. Well-groomed, weed-free lawns mean fewer call-backs, more renewals, and more referrals for lawn care operators; and for golf course managers – a course people can play at their best. Either way, Acclaim gets you the acclaim you deserve!

Contact your distributor to purchase Acclaim today. Take aim on grassy weeds all season long!



EPA Registration Pending

For information, contact your distributor or your local Hoechst-Roussel Agri-Vet Company representative.

Hoechst-Roussel Agri-Vet Company

Route 202-206 North . Somerville, New Jersey 08876



The name and logo HOECHST are registered trademarks of Hoechst AG.
The name and logo ROUSSEL are registered trademarks of Roussel Uclaf S.A.
SH8703010
Copyright 1987

Printed in U.S.A.

GREEN INDUSTRY NEWS

ATHLETIC TURF

Bright ideas for outdoor sports lighting

A football game under vellow lighting just isn't as nice as a game under white lights. That's why most fields are lit with metal halide lights, rather than

In fact, the Orange Bowl is the only major stadium which still uses quartz lights, according to Charles Lindstrom of Lindstrom Associates, Lincoln, Ill. "It's important to have several instantaneous-response quartz lights on a field, however, so people don't panic if the lights go off," Lindstrom told sports turf managers at the North Central Turfgrass Conference.

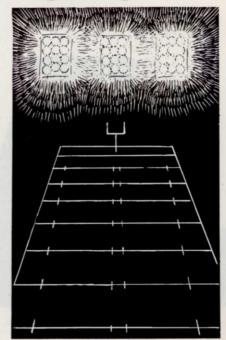
Lindstrom says it's important to take several things into consideration before setting lights up on a field.

- Ask a number of manufacturers to specify the photometrics or lighting array. Photometrics is the lighting level based on how many fixtures are used
- Decide what wattage level light to use. Lindstrom reccommends using

1500-watt bulbs for athletic fields and 1000-watt bulbs for tennis courts.

- Ask the manufacturer about design and placement of poles. Architects and engineers cannot determine this, since it is directly related to the photometrics which varies between companies.
- Get specifications written out based on performance only. This will include the type of foot-candle level, energy consumption and best uniformity. Uniformity is defined by the brightest part of the field divided by the darkest part of the field.

When deciding how to light an athletic field, it's important to keep in mind what events are played on the field, how many spectators will be sitting in the stands, and whether it will be taped for TV. For example, professional boxing requires more lighting than any other sport because of the vast number of spectators in the audience.



CONVENTIONS

Landscape Expo draws attendees from 36 states

Initial response to the second annual Landscape Exposition, March 3-5 at the O'Hare Exposition Center in Rosemont, Ill., has drawn interest on both a regional and national scale.

Attendee pre-registration al-

ready includes representatives from 36 states. They will come from as far away as Massachusetts and California.

Landscape managers from all corners of the industry will attend.

The Expo will have more than

225 exhibitors and 30 conference sessions covering a variety of subjects. For a more detailed look at the Expo, which is sponsored by WEEDS TREES & TURF and LAWN CARE INDUSTRY magazines, see page 80 in this issue.

LANDSCAPE DESIGN

Magazine to start new feature on design

WEEDS TREES & TURF magazine is beginning a new monthly landscape design feature.

This section will consist of three to six color photos of outstanding landscape design/installation jobs completed by companies throughout the country.

WT&T is now accepting color slides of unique or award-winning projects from landscape contractors and designers. Slides will be returned, if requested.

Projects should be submitted in the following categories: use of annuals

for spring or fall color; hardscaping (patios, pools); interiorscaping; creative use of shrubs (texture, shape); aquatic scaping; use of native plant materials (prairie, wildflowers); use of "hard" materials (benches, swings); nightlighting; creative use of trees (spring or fall color, shape, texture); fountain design and surrounding landscape; and winterscaping (evergreens, Christmas lights).

Entire projects, which might not fit into a category above, but demonstrate exceptional landscape design, will also be considered.

Each submission must be accompanied by a description of the project. It should be about one typewritten (double-spaced) page long and should include the following: client's name; designer's and installer's names; awards won; what the client wanted to accomplish; how the designer/contractor interpreted the project; problems; types of plants and hard materials used; cost; time it took; and date completed.

Please send entries to: Heide Aungst, Weeds Trees & Turf, 7500 Old Oak Blvd., Cleveland, OH 44130.