INTRODUCING

New TURFLON* D
FIRST LINE
OF DEFENSE.

New TURFLON* D herbicide. Here's a post-emergence herbicide for broadleaf weeds. It's been thoroughly tested by the major universities in the Bluegrass Belt and proven under Experimental Use Permit (E.U.P.) on hundreds of lawns.

It works. It will reduce callbacks. It will make you money!

Here's why: TURFLON D will get the early season weeds including the tough ones like veronica spp. along with dandelions and other easier-to-kill weeds. A later application gives outstanding control of wild violets, ground ivy, spurge, oxalis and others.

TURFLON D wide-spectrum control works to your advantage when it comes to customer satisfaction. You'll make more money because you'll reduce callbacks, customer cancellations and probably save a round or two of herbicide application.

TURFLON D herbicide is a combination of triclopyr and 2,4-D that will control both the tough and standard weed species without injuring established cool-season turf such as tall fescue, bluegrass and perennial ryegrass. It is a low-volatile ester formulation designed especially for professional applications.

And it offers reduced potential for off-target injury because of low volatility and little movement in the soil.

Now there's cost-efficient broadleaf control you can count on. TURFLON D herbicide...your first line of defense...for better weed control! For more information, contact your chemical distributor or write: The Dow Chemical Company, 9001 Bldg, Midland, Michigan 48640.

---

*Trademark of The Dow Chemical Company
28 Getting Rid of the White Stuff
Most landscape managers across the country at one time or another are confronted with removing snow. An up-to-date look at some of the men and machines that do it.

28 Guide to Fine Fescues
C.R. Skogley of the University of Rhode Island explains the diversity of this often overlooked and under-utilized grass.

32 Lawn Care Market Survey
How much will the lawn care business grow? Has it peaked yet? Where are the greatest expenditures? What are some secrets of managing a successful lawn care operation? Our survey answers these questions and more.

38 Gentleman Jim
Jim Marria is president and owner of one of the largest lawn care companies in Idaho. His business has branched out into other states. Where did this million-dollar company have its beginnings? In Marria's garage.

40 Ever-Green's Gold
Colorado's largest lawn care company thrives on its owner's penchant for hard work and quality.

58 Turf Vehicle Guide
Sales of turf vehicles are being spurred by a healthier market and a demand for luxury vehicles.

DEPARTMENTS
6 Trends
13 Green Industry News
24 Government Update
80 Problem Solver
82 New Products
94 Events
96 Classifieds
97 Advertisers Index
98 Outlook

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

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 3091 Maple Drive, Atlanta, Georgia 30305. Accounting, Advertising Production and Circulation offices: 1 East First Street, Duluth, Minnesota 55802. Subscription rates: $20 per year in the United States; $25 per year in Canada. All other countries: $50 per year. Single copies (pre-paid only): $2 in the U.S.; elsewhere $4.50; add $3.00 for shipping and handling per order. Second class postage paid at Duluth, Minnesota 55806 and additional mailing offices. Copyright © 1984 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. Microform copies of articles are available through University Microfilm, International, 300 N. Zeeb Road, Ann Arbor, Michigan 48106.

POSTMASTER: Send address changes to WEEDS TREES & TURF, P.O. Box 6198, Duluth, Minnesota 55806-9898.
NEW! The quality fertilizer that meets your potassium needs

High K Fertilizer from Scotts® is formulated to help correct soil potassium levels and condition turf to tolerate stress.

Improved tolerance of drought, temperature variations and wear are only some of the advantages from potassium fertilization. For more information about High K Fertilizer or Scotts exclusive soil analysis, call your local ProTurf® Tech Rep.
Our standard 400 cc (11 hp) engine has stood alone as the most popular lawn and garden tractor engine for several years. For several reasons.

- It's got the kind of reserve torque a tractor needs when loads suddenly increase.
- The patented slinger-gear lubrication system keeps all surfaces coated even on 20° slopes. The large 1.42 liter oil capacity extends running time.
- And Magnetron® electronic ignition extends spark duration and KV output while eliminating points and condenser.
- All things considered, there was no other choice. Until now. Because our new I/C 400 cc engine matches its performance against tougher industrial and commercial requirements. It has a cast iron bore to extend block life. Cobalite-faced valves and seats will last longer. Sintered valve guides are replaceable. So is the DU crankshaft bearing.

The dual air cleaner and trash guard perform under dirtier, dustier conditions and extend the service interval.

The new I/C 400 cc works harder, longer. And gives you more to sell.

So you have the option. You can custom match the right engine to your equipment and market and still have the number one choice—Briggs & Stratton.
Demand, imports, deregulation create fertilizer price speculation

The price of fertilizer may roller coaster for the next two to three years according to industry analysts. Large fertilizer users, who have enjoyed stable urea prices for nearly ten years, are planning for increases.

The U.S. Department of Agriculture reports demand has increased more than 200% for nitrogen and more than 65% for potash since 1970. Increased demand for fertilizer has been met largely by importing urea from countries where natural gas prices are cheaper and a strong dollar favors U.S. buyers.

Natural gas is a major component in urea manufacturing. To balance trade the U.S. has now deregulated natural gas. In a story in Fertilizer Progress, The Andersons Sid Muse said imports will continue to put downward pressure on U.S. fertilizer prices. He added deregulation will cause an initial price increase in fertilizer, then overproduction will lower prices within two to three years.

No one has put a figure on the initial increase to be caused by deregulation, but a ChemLawn spokesman used the term “drastic.” Higher fertilizer prices will force lawn care companies, sod producers, and nurserymen to raise prices. They will also encourage development of nitrification inhibitors.

Fungigation of greens promising

Where there are greens there is disease. Dr. Phil Larsen, turf pathologist at Ohio State University, thinks he has a better idea to prevent disease damage of golf greens. He has coined the term fungigation for his system under testing at OSU and on an Ohio state park golf course.

The process entails injecting fungicides into the irrigation system at each green. “It’s impractical to inject fungicides at the pump letting water push them all over the course,” said Larsen as he wrapped up his last field day before moving to the University of Minnesota in 1985. “This way you use only the fungicides you need where you need them. When perfected, the superintendent will be able to quickly attach a container of fungicide to an injector at the side of the green and let the program run as normal.”

Pumping iron gets results

More and more lawn care companies are including iron in their program to boost the color impact of their service to customers. Soil tests might show adequate iron but soil pH and other elements can make it unavailable. Adding the iron to the program gives a dramatic dark green color to the turf and nets positive results from customers.
The surest way to cut mowing costs is to make sure no one cuts corners at the factory.

These features all add up to a better cut and lower costs:

- Differential lock helps prevent wheel spinning.
- Mowing deck raises 8 inches to mount high curbs.
- "Floating deck" helps cut contours without scalping.
- Wide cutting path takes on the big jobs.
- Maneuverability to reach tight cutting areas.
- Lower deck clearance to cut under fences.
- Control panel that's easy to reach while riding.
- Hydrostatic power steering for fingertip control.
- Pop-up hood for easy access and maintenance.
- Clean air intake system to keep engine running cool.
- Welded steel frame for extra durability.
John Deere Presents

THE FRONT

All the newest ideas in commercial mowing... backed by one of the oldest traditions in engineering.

The F930 and F910 Front Mowers. Two of the surest ways to get better mowing productivity while you save time and money. Built with all the newest ideas, these front mowers maneuver under shrubbery and fence rails, climb over curbs, cut up, down and around hills, handle dips and bumps, and mow down the flatout straightaway.

And with John Deere's tremendous reputation for dealer service and durability, your front mower will continue to cut in all those places for years to come.

Hydrostatic power steering eliminates troublesome mechanical linkage and makes tight turns easy — getting you in and out in a hurry.

Dual hydraulic lift cylinders allow the mowing deck to tilt and float up to 12 inches over rough terrain to avoid turf gouging or scalping.

The mowing deck raises 8 inches to clear most curbs without the need for a ramp or driveway.
Yes. I would like more information about John Deere's new Front Mowers. Please include the name of the John Deere dealer nearest me. In order to help us serve your business needs better, please give us information on your possible requirements.

I currently operate:  
(check appropriate boxes)  
☐ 1. Utility Tractors  
☐ 2. Lawn and Garden Tractors  
☐ 3. Material Collection System  
☐ 4. Riding Mowers  
☐ 5. Walk-Behind Equipment  

I would like specifications on the following John Deere equipment:  
(list numbers from above)  

Send us this postage-paid reply card today or call our toll-free number: 800-447-9126 (in Illinois, 800-322-6796) for more information.

Name__________________________

Company________________________

Address________________________

City__________________ State_______ Zip_________
MOWERS.

Driver's area is designed for comfort and efficiency—with a high-back driver's seat and two-position footrest to reduce fatigue, and easy-to-reach controls while you ride.

Efficient clean-air intake cooling system protects the 24-hp Onan engine from overheating and clogging with dirt, dust and clippings—so it runs cooler and lasts longer.

Differential lock on the F930 distributes power evenly to prevent wheel-spinning slippage on slopes and provides better straight-line traction—especially on wet grass.

The 20-hp F910 gives you the same great maneuverability for smaller turf-maintenance jobs.
Options and dealers that make them work harder while they're lasting longer.

Single-stage snow thrower with 12-inch auger and shear pin protection.

Front-mounted blade for light grading, leveling and snow removal jobs.

Hydraulic-suspension custom seat with armrests — anatomically designed for operator comfort.

Durable front-mounted 50-inch (F910), 60-inch (F910 and F930) and 72-inch (F930) mowing decks take on any size job you’ve got.

Roll-over protection system for operator safety.

Fully-enclosed, easily mountable cab with large glass area and two-door access.

Owning a John Deere front mower also means complete service is always nearby. Even the most hard-to-get parts are just hours—not weeks—away, thanks to our unique FLASH computerized parts system.

See how owning a John Deere front mower can cut your high cost of mowing. For the dealer nearest you, call toll-free 800-447-9126 (Illinois 800-322-6796), or write John Deere, Dept. 75, Moline, Illinois 61265.

Circle No. 107 on Reader Inquiry Card

Nothing Runs Like a Deere®
Lawn care list pirate nabbed in St. Louis

The first major reported scam of trying to sell a customer list from a competing lawn care company came to a screeching halt one recent sultry July afternoon in a St. Louis shopping center parking lot.

There, a check for $10,000, a taped telephone conversation, a gun and a pair of handcuffs spelled the demise of one St. Louis lawn care company employee trying to make a quick buck.

The thought of "easy money" spelled the beginning of the end for "John Doe". Thinking he could cut a deal with a competitor after pirating a large lawn care company customer list, he called Mark Wilson of Lawn Groomer, also in St. Louis, and offered to sell 10,000 names at $1 each.

After getting the shady offer, Wilson immediately called his boss, Steve Derrick, in Normal, IL. They decided the best course of action was to first determine where the list came from. Then, they planned their strategy and baited a trap.

When Doe contacted Wilson again, a deal was struck to have a sample of the list sent to Lawn Groomer. "When we got the list and saw how large it was, we knew the list had come from either Evergreen or ChemLawn," Wilson told LCI. "We gave the sample to each of them and Evergreen identified it as theirs."

Paul Davarede and Jim Oates of Evergreen and the West County (MO) Sheriff's Dept. then entered the picture. "What you had was a guy trying to sell a qualified list of prime lawn care prospects," says Davarede, whose major concern was finding the right enforcement group to work with.

Through taped telephone conversations, Evergreen City Manager Jim Oates identified the employee who had tried to sell-out. "It certainly surprised us," Oates said. "He was a production manager at one of our major branches."

Wilson notified Bob Paul of the West County Sheriff's Department that the deal would be set up with one added provision; that Wilson's "boss" would accompany him to the agreed upon rendezvous because the payoff cashier's check was so large.

Doe agreed and "the sting" was under way.

Doe told Wilson to be at a certain St. Louis shopping center parking lot at a specified time. The perpetrator was not told, however, that Wilson's "boss" would accompany him to the agreed upon rendezvous because the payoff cashier's check was so large.

Doe agreed and "the sting" was under way.

At the agreed-upon time, Wilson and his "boss" met and handed over the check in exchange for the list. As soon as the transaction was complete, Doe's rapid apprehension unfolded.

"The cop pulled a gun and stuck it in his head," Wilson recalls.

A few minutes later Doe's accomplice was found in a nearby car. A gun was also found in the car between the seat and door.

Deere acquires interest in Bunton

Bunton Company of Louisville and Deere & Company of Moline, IL, have reached an agreement under which Deere acquires a 20 percent interest in Bunton.

Bunton is a privately held firm that has manufactured a line of commercial turf care equipment for more than 30 years. The company is a leading manufacturer of commercial mowers in the 24 to 61-inch range. Deere and Company is the leading manufacturer of lawn and garden tractors.

Under terms of the agreement, two Deere executives have been elected to sit on Bunton's Board of Directors. They are Ronald K. Leonard, Manager, Engineering, of the John Deere Horicon Works in Wisconsin and Mark C. Rostvold, Director of Marketing, Consumer Products for Deere & Co.

Stan Byers, president of Bunton said, "We believe both companies can contribute equally to joint engineering projects. Deere's investment demonstrates the commitment of both companies to design and develop commercial mowing machines that will enhance the reputation each company enjoys for high quality."

Herbicides

Scott launches latest preemerg turf herbicide

O.M. Scott has received the first label for turf of American Cyanamid's pendimethalin (Prowl). Tech reps from the Marysville, OH, firm are taking orders for the new herbicide, named Turf Weedgrass Control, which controls crabgrass, goosegrass, foxtail, barnyardgrass and seven sprouting broadleaf weeds. The new product applied in late summer to early fall will prevent the emergence of annual bluegrass. Bentgrass is also sensitive to the herbicide.

Marketing manager Roger Farrington said cool-season and warm-season versions of the product will be sold. "Scotts will continue to offer..."
GET THE TRIMMER/CUTTERS WITH THE STRONGEST ROOTS.

Always First
Always Outlasts

35 Years...
Est. 1949

JP420
8" Tri-Kut Weed Blade, T&P Two-line Monofilament Head standard equipment.

In 1952, Hoffco built a special gasoline-powered portable brushcutter for the U.S. Forestry Service: A fast, dependable way to clear firebreaks and save trees.

In 1972, Hoffco engineered and built the first gasoline-powered monofilament line trimmer for homeowners: A quicker, better way to trim along walls and edge along walks.

In 1984, Hoffco makes the only full line of gasoline-powered trimmer/cutters: Faster, easier ways to trim grass, cut weeds, clear brush.

In today's market, you need a full line of gasoline powered portable clearing equipment that handles the tough jobs, the easy ones and everything in between. You need a well-engineered, quality-made product that works right and holds up. You need parts service you can depend on for years to come.

You get it all from Hoffco, the company with the strongest roots. Ready for the growing seasons ahead.

WW850 10"
Brush Blade, 11" Tri-Kut Weed Blade and Tri-Line Monofilament Head standard equipment.

WT320H 8"
Tri-Kut Weed Blade, T&P Two-line Monofilament Head standard equipment.

WT160HT 8"
Tri-Kut Weed Blade, Automatic "tap" feed Monofilament Head standard equipment.

For further information write:
HOFFCO INC., Dept. WTT4-1184
358 N.W. "F" St., Richmond, IN 47374 Telex 20212

Circle No. 117 on Reader Inquiry Card

products containing other pre-emergence herbicides as it has for years."

This is the fifth new product for Scotts recently, including a granular pythium fungicide, a fluid fungicide, a high potassium fertilizer, and a rotary spreader.

HERBICIDES

Dow's broad spectrum herbicide gets label

Turflon-D, a combination of 2,4-D and triclopyr(Carlon), is now available to turf managers from Dow distributors. The new product is effective on the primary and difficult-to-control weeds, such as oxalis, wild violet, ground ivy, spurge and veronica, in cool-season turf.

Dow says the liquid mixes well with liquid fertilizers and other turf chemicals. Product sales manager Vince Geiger says Turflon-D is 'quite immobile in soil', lesening the chance for root uptake by ornaments and trees. It is a low volatile ester formulation with no evidence of plant damage due to volatility during tests. Application to off-target plants and drift should be prevented.

CHEMICALS

Rubigan receives label for poa control in South

Elanco has received an experimental use permit for its fungicide Rubigan as a preemergence herbicide for overseeded warm-season turf on golf courses. Applied as close as two weeks prior to overseeding in the fall, Rubigan reduces populations of Poa annua in overseeded Bermudagrass. Rubigan is currently labelled for control of dollar spot, large brown patch, fusarium blight, and the snow molds in both warm-and cool-season turf.

CHEMICALS

Cyanamid's Arsenal gets conditional label

American Cyanamid's Charles Galley recently sent a telegram to trade magazine editors announcing the conditional registration of Arsenal by EPA.
**ADS Drainage Tubing**

It's dependably tough for your toughest turf jobs.

Flexible ADS drains your greens.

ADS helps maintain beautiful landscapes.

ADS keeps your athletic fields dry.

ADS controls water runoff in heavily trafficked areas.

Sandy soils call for ADS Drain Guard— the nylon filter that won't block or clog.

 ADS tubing—a small part of your turf care budget.

Whether you buy or sell turf care products, you want quality. That's why ADS polyethylene tubing is your best bet. For healthy soil, drainage is important. Strong and durable, ADS tubing provides years of trouble-free drainage, and helps maintain stable soil systems.

ADS is easy to install, requiring less labor and no heavy machinery. A flexible tubing, it follows ground contours and adapts to underground obstacles. And, ADS tubing won't rot, rust or break down during handling or backfilling. A full line of accessory fittings and couplings help simplify even the most challenging installations.

At a cost of just pennies per foot, ADS means quality AND value.

This season rely on ADS drainage tubing. You deserve the best.

**SPECIFICATIONS**


Look for the ADS green stripe. It's your sign of quality—#1 in the land.
When Japan's largest fertilizer supplier, Zen-Noh, needed phosphate rock to make fertilizer, they came to ESTECH. Through our joint venture at the Watson Mine in Ft. Meade, Florida, we helped Zen-Noh import over 600,000 tons of phosphate rock into Japan last year. Which in turn grew a lot of grain. Which in turn fed a lot of people. You'd think we would have shared this claim to fame before now. But that's the secret of our success...

At ESTECH, we don't talk. We just do.

The hot Japanese import.

When Japan's largest fertilizer supplier, Zen-Noh, needed phosphate rock to make fertilizer, they came to ESTECH. Through our joint venture at the Watson Mine in Ft. Meade, Florida, we helped Zen-Noh import over 600,000 tons of phosphate rock into Japan last year. Which in turn grew a lot of grain. Which in turn fed a lot of people. You'd think we would have shared this claim to fame before now. But that's the secret of our success...

At ESTECH, we don't talk. We just do.

Estech, Inc.
We'll share some equally revealing secrets about Professional & Commercial Fertilizers.
Call Irv Stacy, National Sales Manager, Par Ex 613/533-1181

ORNAMENTALS

Winter damaged plants remain weak into fall

The winter of 1983/84 continues to take its toll on landscape plants across the country. Ohio State University Extension Specialist Elton Smith has warned state landscapers that winter damage combined with prolonged dry weather has weakened many plants to the danger point.

The weakened condition of many plants makes them more susceptible to damage from insects, disease, and soil nutrient deficiencies. Resistance to and recovery from these normal enemies is greatly reduced.

Smith advises special attention to fertilization, mulching, and irrigation this fall, in addition to winter protection methods. Smith says plants should receive no less than one inch of water every ten days. The bottom line is the root system of weakened plants have not adequately regenerated over the summer and fall and special precautions are necessary to help them survive the stress of winter.

TURF VEHICLES

Heald kit firm sold to Bear Ind.

Don Rupley has sold his major interest in Heald Inc., a manufacturer of turf vehicle kits, to Bear Industries of Downers Grove, IL, a holding company with farm equipment related companies.

Former Mott president Mitchell Blayney, is now president of Bear. Rupley will remain president of Heald as a division of Bear. Heald will continue with design, manufacturing and packaging of vehicular kit products, but will also assemble.

LEGISLATION

3PF sues Waucanda to block model law

In the eyes of many commercial pesticide applicators a time bomb is ticking in Waucanda, IL. That city passed a law this year requiring posting of areas sprayed by commercial applicators. This particular legislation is being used as a model in hearings for local pesticide legislation across the country.

To lawn care companies and arborists, Waucanda is a ghost town since few care to operate under the ordinance. That is their decision. But,
When there's a lot on the line, professionals choose TORO!

That's why TORO was a key performer at Munich, Montreal and Los Angeles

Stadiums that hosted three of the last four Olympic Games chose Toro 640 sprinkler heads for the vital task of irrigation when the eyes of the world were focused on their turf. No wonder! Toro 640s are safe, with a very small 2 1/4-inch exposed surface. And they install 1/2-inch below grade. They pop up 2 3/4" for efficient watering, then fully retract with heavy duty stainless steel springs. To top it all, these superior sprinklers are backed by Toro's 7-year warranty. Oh, about the fourth Olympic site, Moscow? Well, we really don't know, but we'd be willing to bet that the Russians wish they had invented the Toro 640! Toro, the leader in sports field and large turf irrigation products.

The Toro Company, Irrigation Division
Dept. WT-1184, P.O. Box 489, Riverside, CA 92502

Excellence in Irrigation™
the Pesticide Public Policy Foundation, a lobbying organization for commercial pesticide applicators, is suing the city in an attempt to make the law an example in their favor instead of a law used to spread legislation across the U.S.

David Dietz, director of 3PF, claims Waucanda is leading the way to Federal legislation this spring. "We expect to see son of Harper's Ferry plus a lot of nieces and nephews, in Congress this spring." Harper's Ferry bill, called an environmentalist's want list, failed to pass Congress last session.

3PF is suing on three counts. First, the city overstepped its bounds since authority for pesticide legislation rests solely with state and Federal authorities. Secondly, the law discriminates against lawn care companies and arborists, without including agriculture or homeowner pesticide users. Finally, the Interstate Commerce Commission is evaluating the impact of the law on interstate commerce.

The suit was filed in mid-September. Waucanda had 30 days to respond. The response will be published in December Weeds Trees & Turf.

PLANTS
Software package lists 800 shrubs
Ortho Information Services, a leading publisher of how-to gardening books, is introducing a new computer software package listing more than 800 shrubs and flowering plants organized according to growing zones.

A spokesman for the company said by entering the zip code of your area, a person can automatically access only those plants that can be grown in the specific region.

The software comes with a book, Gardening Techniques, a 192-page expanded version of the standard titles in the Ortho paperback line. The entire "Ortho's Computerized Gardening" software package will retail for about $49.95. It is compatible with Apple II Series, Apple Macintosh, IBM PC and Commodore 64.

ASSOCIATIONS
PGMS hires Shulder as full-time director
The board of the Professional Grounds Management Society (PGMS) voted in October to hire a full-time executive director and named current part-time director Allan Shulder to the post. Shulder's contract begins January 1, 1985.

PGMS has been seeking applications for full-time director since its last annual meeting.

Michael Keating, chairman of the 1984 conference in Worcester, MA, told Weeds Trees & Turf, "Allan was restricted by his full-time job (as landscape maintenance director for a suburban Baltimore Hospital) and the board felt we needed a full-time director to realize the full potential of the organization. Since Allan knows the association better than anyone else and is already active in the Landscape Industry Association Council (LIAC), we budgeted the funds to enable him to go full-time."

The PGMS board set a goal of 1,500 members within two years, from its current 1,100. They discussed combining trade shows with another industry association and beefing up member services. More than 250 members attended the Worcester show which featured key speakers and tours to nearby historical sites.

Vermeer Stump Cutters:
Fastest, most cost-efficient way to remove large, ugly tree stumps ... in minutes!
- A simple, one-man operation.
- Hydraulically-controlled cutting wheel cuts 'em out down to 24" below surface.
- A patented system used all over the world...backed by a company and dealer organization that have sold and serviced more stump cutting machines than all other makes combined.
- Four different size models to fit your specific needs.

Interested? Discover the "New Generation" of Vermeer Stump Cutters today. Contact your local Vermeer dealer now for complete literature, specifications and pricing.

Call toll-free 1-(800)-247-2347
*In Iowa, call (515) 628-3141

Vermeer
8811 New Sharon Rd. • Pella, Iowa 50219

A New Generation
Circle No. 154 on Reader Inquiry Card
Circle the Reader Service numbers of those items of interest to you.
EDUCATION

WSNA deals out $5600 in scholarship funds

The Washington State Nurserymen’s Association (WSNA) recently awarded eight students in horticulture, landscape architecture, and related fields a total of $5,600 in scholarships and research grants for this school year.

Stephen Mark Nordeen, a Washington certified nurseryman and employee of Edmonds Garden Center, Daniel Ray Snipes, a horticulture student, Mary E. Auld, a third year landscape architecture student, and Elaine Montague, in her final year of horticulture and business studies, all received $800 scholarships. Nordeen attends Western Washington University, Mary Auld the University of Washington, and Snipes and Miss Montague Washington State.

The latest recipient of the WSNA Northwest Chapter’s Jim Brown Memorial Scholarship (established in honor of Jim Brown, the blind founder of Wayfarer Nursery, who died in 1978) is David M. Hulings, a student at Edmonds Community College.

Receiving $300 scholarships were Nancy Sakagami and Steve Swartz.

For a job well done

Jon Loft, chairman of Loft’s Inc., presents a check for $65,232.26 to Rutgers University representing the royalties on the 1983 harvested turfgrass seed developed by that university, including RAM I and Mystic Kentucky bluegrasses, and five perennial ryegrasses—Palmer, Repell, Diplomat, Yorktown, and Yorktown II. Loft credited the unusually high royalties to the increased demand for high-quality turfgrasses. Pictured with Loft (l to r) are Dr. R. Hurley of Loft’s, and Drs. H. Indyk, R. Duell, C. Reed Funk, L.A. Douglas, and R. Engel all of Rutgers.
both of South Seattle Community College, and Roger D. Anderson at Clark College.

AWARD

Dow’s Chapman honored for articles

Douglas J. Chapman, horticulturist-administrator at Dow Gardens and a member of the Weeds Trees & Turf editorial board, picked up the Author’s Citation for 1984 from the International Society of Arboriculture at a recent meeting at the Chateau Frontenac in Quebec City, Quebec.

During the past three years Chapman has had articles published in numerous scientific and commodity publications, including: International Society of Arboriculture, International Plant Propagators Society, American Nurseryman, Weeds Trees & Turf, American Horticulture Society, Purdue University, American Society for Horticulture Scientists, and Arborists Journal.

The articles have dealt with some of the research conducted at Dow Gardens, Midland, MI, in the areas of propagation, provenance, plant adaptation, new plant introductions, and integrated plant management.

Chapman has been at the Dow Gardens since March 1975 with his main research concentrating on the development, propagation, and introduction of new woody ornamental trees and shrubs in the Great Lakes region.

ASSOCIATIONS

ASPA midwinter confab slated for Disney World

The Contemporary Hotel on the Walt Disney World Complex, just outside of Orlando, FL, is the site of the American Sod Producers Association’s (ASPA) 1985 Midwinter Conference, and ASPA officials caution that early hotel reservations will be necessary because of the popularity of the hotel. The room reservation deadline is Dec. 16, which is 45 days prior to the actual meeting set for Jan. 30-Feb. 1.

In a related matter, the ASPA five-point code of ethics is being distributed to members in plaque form.

SCAG POWER EQUIPMENT, INC.
P.O. Box 589
Elm Grove, WI 53122
414-544-4090

SCAG — a good name to remember

The broad-ranging code was approved by the organization’s 13-member board of trustees earlier this year and was introduced in plaque form during the summer convention and field days.

Inquiries concerning the midwinter conference and the plaque can be directed to ASPA offices, 4415 West Harrison, Hillside, IL 60162, or phone (312) 449-2890.
Originality of concept sets the...

**EeGER BeeveR ChippeR**

**S t a n d a r d f o r T h e I n d u s t r y!**

- **Safer**
  Meets ANSI recommendations

- **Quieter**
  Less noise exposure

- **More Economical**
  Change knives in 15 minutes—uses 20 to 30 percent less fuel—easy, low cost maintenance

Innovation has been a tradition with Morbark for more than a quarter of a century. In 1958, we introduced the world's first portable pulpwood debarker. We grew with the industry by always being alert to the needs of our customers. In 1970, we introduced the first portable whole tree chipper that would consume whole trees, branches and all and convert them to uniform dimensional chips in a matter of seconds. The success of the whole tree chipper brought the demand for the "EegeR BeeveR" brush and whole tree chipper for a market that had struggled for decades with less than adequate tools. The improvements, added efficiency and enhanced economic benefits made available by the disc type whole tree and brush chipper has found an appreciative and receptive clientele. Private tree companies, utilities, contractors and others in the trade have found this to be a dependable and reliable machine.

We are complimented by those who would try to imitate the highest standards of the original. If you compare honestly and carefully weighing feature for feature, you'll find that none can match the excellence of the MORBARK "EEGER BEEVER"...not even the price!

**MORBARK INDUSTRIES INC.**

P.O. Box 1000 • Winn, Michigan 48896 • (517) 866-2381

Circle No. 132 on Reader Inquiry Card
**SUPREME COURT ASKED TO HEAR BUREAU OF LAND MANAGEMENT BAN**

As reported in the August issue, the Pesticide Public Policy Foundation (3PF) has pinpointed a spraying ban on land in Oregon and Washington managed by the Bureau of Land Management (BLM) as "the most significant pesticide issue confronting the Green Industry". This dispute over "worst case" analysis prior to spraying, has stopped all contract spraying in these areas and threatens to stop spraying in other BLM areas.

The Department of Justice has asked the Supreme Court to review a Circuit Appeals Court ruling supporting the worst case procedure, since it is a matter of conflicting pesticide regulations.

The original ban was achieved in a suit by the Southern Oregon Citizens Against Toxic Sprays, Inc. They won the case through the Ninth Circuit Court of Appeals, the Court ruling in favor the National Environmental Policy Act (NEPA) over FIFRA. NEPA uses worst case analysis while FIFRA uses risk versus benefit analysis for approving pesticide use.

**EPA TO TIGHTEN LABEL REGULATIONS ON BIRD KILLING GRANULARS, ADVERTISING**

Wildlife consumption of granular pesticides and advertising claims will face greater regulation under new amendments to FIFRA proposed by EPA.

Certain granular pesticides have allegedly been toxic to feeding birds and other wildlife. These products would carry a restricted use classification.

EPA also wants to police advertising of restricted use pesticides. The proposal would probably be similar to Food and Drug Administration regulations focusing on claims of use, efficacy, and safety.

**MORE RESTRICTED USE TRAINING LIKELY**

EPA's Administrator's Pesticide Advisory Committee is hitting the question of direct supervision of restricted use pesticide applicators hard. Members of the Committee range in opinion from "on site" supervision to extra training, but not necessarily certification.

One member called direct supervision "impractical", recommending varying levels of training for different pesticide classifications instead. The representative from the National Campaign Against Misuse of Pesticides claimed certification was no more difficult than taking a driver's licence examination.

**TREES**

Shigo warns effects of improper pruning

Poor pruning is one of the number one culprits of injury to trees, according to Dr. Alex Shigo of the USDA Forest Service, Durham, New Hampshire.

Shigo, one of the key speakers at this year's Professional Grounds Management Society annual conference in Worcester, MA, in October, told a packed room of professional grounds managers that neglect, poor care, and poor pruning are a tree's worst enemies.

"Nature does everything short of putting blinking lights on how a tree should be pruned," he said. "Nature comes with a set of instructions that are seldom heeded."

Shigo, one of the foremost plant pathologists in the country and a frequent international tree consultant, drove home the idea that a tree is a "compartmentalized" organism with many "boundaries."

"There is absolutely no way a tree can heal a wound," explained Shigo. "They set boundaries around the infected tissue that compartmentalizes it, but doesn't heal it."

Shigo passed out brochures on proper tree pruning at the conference. Additional copies can be secured by writing the Northeastern Forest Experiment Station, 370 Reed Road, Broomall, PA 19008.
It pays to spray...economically!

Introducing LESCO Three-Way Selective Herbicide.

For single-application broadleaf weed control, the triple-action effectiveness of 2,4-D, MCPP and dicamba is tough to beat. Now you can get that reliable three-way control from LESCO — and at a lower price than you have been paying for the same herbicide combination. And LESCO Three-Way eliminates the inconvenience and inefficiency of tank mixing — you save time and money.

This newest quality herbicide from LESCO is available in five-gallon, 30-gallon and 55-gallon containers. In most areas, bulk shipment by tanker truck or tote tank can also be arranged.

LESCO just made broadleaf weed control more convenient and less expensive. To order or to find out more about LESCO Three-Way Selective Herbicide, call toll free.

(800) 321-5325      (800) 362-7413
NATIONWIDE        IN OHIO

LESCO, Inc., 20005 Lake Road, Rocky River, Ohio 44116 • (216) 333-9250

Circle No. 124 on Reader Inquiry Card
You're responsible for a course worth millions.
Sod webworms should be the least of your worries.

What's it going to be this year?
The usual sod webworms, billbugs, chinchbugs and grubs? Or perhaps nasty surprises like armyworms or cutworms?
As if this time of year isn't busy enough without insect problems, that's when they hit you.
SEVIN® brand SL carbaryl insecticide hits them back. Hard.
Without clogged nozzles or tank-mix problems. Without corroding equipment. And without protective gloves or masks.
As a water-based sprayable formulation, SEVIN® brand SL is easy to handle, mix and dispose of. So with the time available for application, you spend more time spraying. Less time re-filling.

Tried, tested, trusted
SEVIN® brand SL carbaryl liquid effectively controls over 25 common turf insects, including sod webworms, white grubs, chinchbugs, billbugs, crickets, even ants, ticks and fleas.
SEVIN® brand carbaryl kills insects on contact as well as by ingestion. So you get extended residual action whether pests are feeding or not. And SEVIN® brand carbaryl gives you the peace of mind that comes from knowing it's used for insect control on pets, poultry and even some game birds.
So it's ideal for insect control in golf courses, parks, and other recreational turf areas used by people.
In fact, you can put greens, fairways and other golf course areas treated with SEVIN® brand SL back into play as soon as the spray is dry.
You keep more turf area in use. And to the people who play your course, that's important.

Dependable SEVIN® brand
SEVIN® brand carbaryl is biodegradable in the environment. And there's no harsh odor to annoy players.
SEVIN® brand carbaryl insecticide is registered not just for turf but also trees, shrubs, and flowers. So you don't need to keep track of a large inventory of different insecticides.

Ask your turf chemicals supplier about SEVIN® brand SL carbaryl insecticide. It can help put your pest problems into perspective.

From the turf care group at Union Carbide
Full service is a term heard more and more today from landscape maintenance companies. Snow removal, although seasonal, is a growing part of full service landscape management.

Readers have discovered by using the same sound business practices they use for growing season industries (and much of the same equipment too) they can build a lucrative off-season business.

Maintenance contractors sometimes don't have a choice. Snow removal is an integral part of the year-round condominium and apartment maintenance accounts they worked so hard to get. They HAVE to provide professional snow removal.

WT&T talked to Green Industry businessmen from across the nation and learned that whether they push snow for that all-important winter cash flow or as part of their regular maintenance tasks, there are several factors that determine their success. Three kept popping up: planning, equipment, personnel.

Bill McGee of Smith Lawn and Tree, Kansas City, MO, thinks planning is a major reason why his company is successful in providing snow removal for 43 commercial locations in his area. He wants his employees to know their territories and duties long before snow flies.

"We take our men out and let them look at all of our areas, usually sometime in October," McGee says. Besides acquainting the men to their routes and duties, this pre-season tour can pinpoint potential problems, like shrubbery or landscaping that's likely to get covered and possibly mangled by machinery.

Each of Smith Lawn and Tree's four-wheel-drive trucks contains a 12-page booklet giving locations and the types of equipment to use for particular jobs, and many of Smith Lawn's trucks are equipped with two-way radios. "We do this so that if somebody not familiar with the route has to do the work, he'll know what to do," McGee explains.

The Kansas City firm uses 16 pieces of equipment in its snow removal battles, including a small fleet of four-wheel-drive trucks with plows, one John Deere tractor with a blade, and two Hustlers which double as riding mowers in the summer. When the snow falls the Excel Hustlers are equipped with cabs, heaters, windshield wipers, and blades to work in and around sidewalks and touch-up areas.

Other companies also provide accessories to turn what is generally regarded as summer equipment into...
This new, exclusive Clean Crop® Dacthal formula has many advantages over liquid and wettable powder. The 75% water dispersible granules flow easily and completely from the container with no pre-mixing, no dusty measuring or container disposal problems. It’s freeze-proof and stores stable for years. And unlike the others, it comes in handy 25-pound bags. Get Clean Crop Confidence with new Dacthal WDG, an exciting, new formulation of an old standby pre-emergent herbicide. For more helpful information call 1-800-228-0096, or 1-800-642-TURF in Nebraska.
announced optional attachments for snow fighting machinery.

For instance, Bunton recently announced optional attachments for its turf tractors, including an insulated cab with windshield wiper and defroster. Blades and snow throwers are available for the Bunton tractors, attachments other manufacturers usually offer for their turf tractors as well.

Although Bob Coles at Minnehaha Falls Nursery, Minneapolis, provides both snow removal and hauling, the hauling generates more cash and is generally easier on his equipment. He charges on an hourly basis and handles such commercial accounts as their use from summer to winter by adding the necessary attachments.

The heart of his snow removal effort is a pair of 17-hp, four-wheel-drive Kubota tractors equipped with class A hitches (the same used on farm equipment). In the summer the tractor can be fitted with a backhoe, rototiller, or lawnmower, and in the winter with plows. "I'm not saying they'll do everything perfectly," Moren says, "but they're versatile pieces of equipment."

For clearing sidewalks to the individual housing units Moren uses four 8-hp Simplicity snow blowers which he describes as "the best on the market."

Bob Nagel of Bob's Lawn Service in Eden Prairie, MN, a suburb of Minneapolis, uses John Deere snow blowers, a Bobcat, and seven Ford trucks with Western snow plows to service his snow accounts who became customers as a natural extension of his lawn care business. "It just kind of fell in place," Nagel says of his 10-year-old snow removal business.

Like Nagel, Craig Christenson of Midwest Turf in Wayzata, MN, uses a 3/4-ton Ford pickup equipped with a Western plow. Many of Christenson's snow removal customers are also lawn maintenance customers.

"A lot of people want service 12 months of the year and they want to deal with one person instead of a lot of different people," Christenson says. "So, if you're willing to expand yourself, you open yourself up to a bigger market. If things start to get too big, we subcontract some of it out."

Some of the largest accounts in the northeastern Ohio city of Akron are handled by Fred Azar whose landscaping and snow removal businesses are only six years old. Azar believes in getting the most out of his equipment, so he preaches maintenance.

"In changing from landscaping to snow removal I have to make sure everything is tuned up and in perfect working condition. Breakdowns are usually more annoying and more expensive in winter," he says.

The heart of Azar's operation is 16 four-wheel-drive dump and pickup trucks and an assortment of front loaders and tractors he also uses in his landscaping business. "That way they're not sitting around all winter," he explains. "They're out there making me money."

Among his 75 accounts is Akron City Hospital with its heliport which Azar must keep free of ice (he uses an alcohol-based solution) and miles of sidewalks which he assaults with an army of 15 Toro snow blowers.

"There isn't one special manufac-

continued on page 86
In 1983, we surveyed state extension authorities and universities. We did it again in 1984 and Betasan, once again, came out the number one choice for crabgrass control and safety to turf. That should come as no surprise. Comparing published test results from six different universities stretching across the U.S. from Rhode Island to California, no other herbicide consistently scores so high on crabgrass control, yet so low on injury to existing turf. No other preemergence herbicide even comes close for poa annua control. Betasan is the only safe and effective product on bentgrass. It's also safe on established bluegrass, fescue, perennial ryegrass, Bermuda grass, Zoysia, bahia, centipede, St. Augustine and dichondra. That makes it safe for your tees, fairways and greens — the safest crabgrass control of all. Betasan not only offers longer protection than most other herbicides, but with multiple applications, you can achieve control of goosegrass, barnyardgrass, redroot pigweed, sheperdspurse, lambsquarters and deadnettle, as well as crabgrass and poa annua. Keeping more weeds out of play. Longer. For all those reasons experts say, "Betasan has always been best." For all those reasons, it still is. Available in granular or liquid formulations, with no settling out problems. Always follow label directions carefully. Stauffer Chemical Company, Specialty Products, ACD, Westport, CT 06881.
The lawn care industry continues to set records in gross sales and growth. Analysts don't predict a slackening until the late 80s and a leveling off early in the 21st century. Right now, though, the industry is booming with companies becoming more professional and more service-conscious.

A Bull Market

It's a "bull market" in the lawn care industry.

According to the results of a survey done by Lawn Care Industry magazine, gross sales of the nation's leading lawn care and landscape management companies in 1983 was a record-setting $2.22 billion. That represents a 20.2 percent increase over the 1982 figure.

Market growth should continue in the 20 to 25 percent range for the remainder of this decade, but the cloud isn't totally silver-lined. Certification, prenotification, self-policing and expanded services are industry spectres refusing to go away. Market saturation is also hanging heavily over lawn care companies in certain markets.

Industry profile

Respondents to the Lawn Care Industry survey indicated that an average of 90.8 percent of their accounts were residential. Translated, that means the readers of the magazine serviced about 6.4 million home lawns in 1983. Overall, more than seven million accounts were serviced. About 7 out of 10 LCOs are involved in disease control, aeration and/or renovation. Of these add-on services, disease control is slightly more popular with 73.6 percent of the respondents answering positively. Aeration tasks are undertaken by 71.9 percent of the respondents and renovation by 69.4 percent.

Fifteen percent claim their entire business is chemical lawn care. Another 7 percent claim to do exclusively landscape management accounts.

Where the money goes

The typical survey respondent spends 29.93 percent of his gross receipts on labor, 15.70 percent on fertilizers and pesticides, 7.94 percent on fuel and 4.02 percent on advertising.

The average reader's pretax profit is 20.53 percent. Overall, the predominantly chemical lawn care business scored higher in pretax profit than the predominantly landscape management business, 22.19 percent to 19.58 percent.

Based on these figures, the pretax profits of lawn care businessmen in 1983 were $456.3 million. They pumped $665.3 million into the labor market, spent $176.5 million on fuel for their vehicles and paid $89.4 million for advertising.

Telemarketing is a relatively new phenomenon to the industry. Just 5.8 percent of the respondents indicated they are involved in a full-blown telemarketing program, though 21.1 percent said they use telephone solicitation as part of their advertising plans. Studies have shown, however, that telemarketing can be more cost-efficient than direct mail, cutting the cost by as much as one-half.

Marty Erbaugh, president of Lawnmark Associates, Peninsula, OH, and a former Professional Lawn Care Association of America president, said, "You may choose to avoid the reality of these figures, but telemarketing is here to stay."

LCO profile

Three out of every four businesses in the lawn and tree care industries DO NOT belong to either a state or regional professional organization, according to the National Urban Pesticide Applicators Survey. The survey, done by Frederick W. Immerman of the Center for Survey Statistics, found that 74.37 percent of all tree/lawn care firms did not belong to a regional or professional organization. Just 18.73 percent of the 3,208 companies said that they did, compared to 41.14 percent of 5,496 structural pest control operators.

According to the Immerman survey, most of the companies involved in tree or lawn care fell into a bracket of less than $25,000 gross sales per year.

continued on page 36
The Melroe Company insists on maintaining the highest standards of quality in design and manufacturing in their versatile Bobcat loader line. Like landscapers, we demand high quality materials and workmanship, and that goes into every machine we build. Even with those stringent requirements, we supply you with a top quality loader at a competitive price.

That quality is reflected in ever-increasing demands for Bobcat loaders and attachments by landscapers in every segment of the landscape industry. Bobcat durability, ease of operation and maintenance, comfort and safety, parts and service reliability, and a strong dealer support network, give you job performance that can't be equalled by any other loader.

The Melroe Company's dedication to building quality machines is your assurance of value and performance. Landscapers have learned to rely on Bobcat quality to help build their own business on that same reputation.

Quality work - we're in it together!
WHAT MAKES THE CUSHMAN
GRASS GROOMING SYSTEM
WORTH THE INVESTMENT:

Twenty-two percent more horsepower.
Improved performance. Increased work value. Nothing cuts, catches and dumps as fast or as economically.

The problem with most mowers is that no matter how fast they cut, your work slows to a turtle's pace when it comes to cleaning up the clippings.

That's why we created the Cushman Grass Grooming System. With it, you can cut, catch, dump and resume cutting without interruption.

A NEW 22-HP ENGINE.
At the heart of our Grass Grooming System is the Cushman Front Line™ mower.

And at the heart of the Front Line is a remarkable new 22-hp gas engine.

It gives you the power to maintain blade speed through tall grass, dense weeds and other conditions that might stop other mowers.

It's built the way you want an engine built—tough. The crankshaft is forged alloy steel.

The cylinder heads are reinforced for extra strength under stress. And all the details—from the Teflon-coated O-rings and swaged-in-place valve guides to our exclusive Clean-Air Induction System—were designed with one goal in mind.

Years of dependable performance.
FIRST CLASS MOWING.
Here's where it all pays off: the quality of a Front Line mowing job.

The three cutting blades are positioned to overlap each others' swath slightly. So no grass is left uncut. The driver can maneuver around bushes, trees and sidewalks with incredible precision, thanks to the Front Line's Dual Traction Assist pedals—separate braking for each of the two front wheels that gives you a tight, zero turning radius.

THE FINISHING TOUCH.
Mounted to the Front Line's right side is the Cushman Grass Caddy™—a durable, non-stick polyolefin hopper that collects up to 16 bushels of clippings and debris.

When it's filled, just back the Front Line up to a truck or container, engage the hydraulic control and the Grass Caddy hopper lifts 4½-feet above the ground and dumps.

In seconds, you're back on the turf mowing again. And you've never once left the driver's seat.

All of which makes the Cushman Grass Grooming System the world's most labor-saving mower.

Every major component is made by Cushman, so you have a single source for service and parts.

A FREE DEMONSTRATION.
See the Cushman Grass Grooming System in action. Call toll-free: 1-800-228-4444.
It works harder because it's built better.
Straight-forward engineering and clean, simple design make HUSTLER worth the difference!

Nothing wastes budget dollars more than unreliable, high maintenance equipment. That's why Excel designed HUSTLER with a simple, low maintenance dual hydrostatics system.

HUSTLER's dual hydrostatics are the key to minimizing your daily and scheduled maintenance. This time-proven concept eliminates expensive, high maintenance items like gears, chains, clutches and pulleys.

Instead, two reliable hydrostatic pumps power two hydraulic motors, one on each drive-wheel. The system works half as hard at half the pressure of a single hydrostatic system. Therefore, the HUSTLER drive system lasts much longer. And, HUSTLER has only three daily lube points compared with 10 - 15 on other competitive units.

HUSTLER dual hydrostatics mean less maintenance and service costs.

For you, it means more productivity and reliability. A HUSTLER is ready to mow when you're ready to go. That's why HUSTLER is...worth the difference!

This drive-wheel hydrostatic drive system is HUSTLER'S key to low maintenance and high productivity. Its simple, sound design makes HUSTLER the ultimate in reliability.

There are six HUSTLER models ranging from 18 to 32 hp with a host of attachments to meet year-round needs.

EXCEL Turf & Grounds Equipment
GS-075-10622
To see a FREE HUSTLER DEMONSTRATION on your own turf. CALL TOLL FREE
1-800-835-3260
or you can write for free literature: EXCEL INDUSTRIES, INC.
P.O. Box 7000, Hesston, KS 67062

Lawn Care Growth Curve

Homeowner attitudes also provide insight into the market. Six percent of 45 million owner-occupied single-family homes with lawns in this country contract for professional lawn care. That percentage increased to 13 for homes with incomes more than $20,000 per year. Of all lawns contracted for professional lawn care, 34 percent are under 5,000 square feet. Fifty-four percent are under 7,500 square feet. Homeowners' biggest lawn problems are weeds (summer annual broadleaf); insects (white grubs); disease (Fusarium blight); and drought injury.

LCOs contacted for the survey had a generally upbeat outlook for the future of the industry.

Down the road

Jim Chapman of Lawn Aid, Bellevue, WA, says he sees the industry growing in two directions.

"There will be companies like mine involved in full service and I also see a need for specialty companies like ChemLawn which may perhaps become more specialized. There's more money in specialization because there's more satisfaction in full service if you do a good job."

Joe Williams of Lawn Master, Pensacola, FL, ranks pesticide regulation at the top of his list of things affecting his industry's future. Says Williams, "It could be very damaging if it got out of hand. If we don't monitor it ourselves and get control of it—misuse of pesticides, that is—we've got enough of it that environmental groups will definitely take advantage of our mistakes and hurt us all in the long run."

One industry analyst sees lawn care industry sales conforming to a standard bell curve. This means the sales growth rate will start to decrease late in the 80's, and level off early in the 21st century.
Quality turf production is no accident and quality turf producers aren’t either.

We know, because it’s for the sake of quality that we exist. ASPA consists of, and exists for, sod producers like you who want to be the best, as sod producers and as business people.

Like you, American Sod Producers Association members know that quality is a result of hard work, excellent resources, and experience.

And that’s one of the major reasons they join ASPA — to put the years of experience of more than 450 other quality sod growers immediately into their hands, to produce better sod and to run better businesses.

We invite you . . . a quality turf producer . . . to join ASPA and add your experiences to the wealth of knowledge already pooled together from our members across the U.S., Canada, and 11 other countries.

Of course, there are other benefits ASPA members enjoy, too. Like the two national conferences every year (the next one coming up in January!), the members-only trade magazine and business newsletter, the special seminars and tours, and the advertising and sales aids at a cost well below what you would pay on your own. And, the benefits list continues to expand with such additions as group insurance programs.

But the primary reason we invite you to join us is because we think you’re probably like us, striving to be the best and looking for every advantage to achieve it. ASPA is that edge.

We’d like to tell you more. Send us the coupon below, and we’ll send you membership information describing in detail all of the benefits awaiting you as an ASPA member. Or, call us collect at 312/449-2890, and we’ll describe the ASPA Quality Advantage by phone.

YES! I want all of the Quality Advantages I can get. Send me information immediately about ASPA membership.

Name

Company name

Address

City State Zip

Phone

Sod producer since 19._____.
Total acreage in production ____ acres.

☐ Count me in! Experience is the best advantage I can have; just tell me when my benefits begin.

☐ Tell me more about the upcoming ASPA Midwinter Conference and Seminar scheduled for Jan. 30-31 & Feb. 1 at the Walt Disney World Contemporary Resort in Florida.

Mail to

ASPA, 4415 West Harrison, Hillside, IL 60162. For even faster action, call ASPA collect at 312/449-2890.
Six years ago, Jim Marria sat in the garage/office of his newly-formed company, Perma Green. He had one truck, one employee and a secretary—his wife, Karen.

Today, Marria sits in a new office complex overlooking the Boise, ID, airport (where he keeps the company plane), has 45 vehicles, 120 employees, five multi-state branches with plans to open a sixth next year, and has sampled the sweet taste of success. This year Perma Green will do about $4 million in business; ninety-five percent of that will be residential, the other 10 percent commercial. His company is a leader in the industry and not even overtures of a buyout by the largest lawn care company in the country has deterred Perma Green's growth and determination.

Growth has been so great that Marria, 35, even got his pilot's license. His twin engine Cessna is a much more efficient way of getting to his company branches in Reno, Spokane and the Tri-City area than driving or commercial flights.

The branch visits have been cut down, though, usually to once a month.

"When you have good managers, you don't need to supervise as much," Marria says.

For all his success, Marria prefers a low profile and downplays his accomplishments. "I'm a good organizer and can accomplish a lot in a short while."

Jim Marria, president and founder of Perma-Green flanked by a drawing of his twin-engine Cessna.

Where it all started
Marria's gut feeling that he knew what he was doing and knew the industry well prompted him to start his own business back in '78.

"I also knew we had good people," he says. Much of what Marria learned about lawn care he credits to his eight year tenure with the Davey Tree Service Co. of Kent, OH. There, along
Part of Perma-Green's fleet lined up by one of its larger commercial clients, Morrison-Knudsen in downtown Boise.

with Marty Erbaugh, (now owner of Erbaugh Corp., Lawnmark Division, Peninsula, OH), they started Davey Tree’s lawn care division.

“We did a lot of research on lawns back then,” he relates. “I also read a lot. It was difficult to convince people they needed lawn care. Word of mouth and seeing the product was, in the end, what convinced them.” Marria continues his people-oriented philosophy. He says he looks for people who are willing to give 110 percent. He, in turn, practices what he preaches. He makes visits to branches as often as necessary, usually about once a month. Before he had the managerial manpower to delegate some of that responsibility, he made visits more often.

“I’m still there to support my managers when they need it.”

Marria has two managers who report directly to him. Lowell Troyer is the branch manager and Mike Spicer is division sales manager. There is also a marketing manager and a corporate office manager. All marketing work, including marketing studies, is done internally.

Marria’s efficient corporate team affords him time to indulge in one of his favorite pasttimes—running. The 35-year-old puts in about five miles a day and in May ran his first marathon—in Paris. Summing up the grueling experience, Marria says, “I finished.”

“I was supposed to run the Seattle Marathon, but a week before it, I hurt my leg during a run in San Fransico. I was going to Europe anyway and decided to try to run the Paris marathon. It was a goal.”

Back home in Boise, Marria runs frequently in local races.

“Biggest threat

Like other concerned lawn care company owners and operators, Marria feels the single thing that could bring the industry to its knees is governmental pesticide regulation.

“There are so many things we (lawn care industry) could cope with, but not this,” predicts Marria. “It really scares me. It’s a larger threat than most people perceive.

“Our business is to provide green, weed-free lawns,” he continues. “If chemicals such as 2,4-D are limited in non-agricultural applications, it could do us in.”

Marria feels exposure as an industry is 98 percent of the solution.

“Lawn care operators must join associations and become involved in the Professional Lawn Care Association of America and with the Pesticide Public Policy Foundation.”

“Nowhere but up

Marria’s business continues to grow. Last year, business increased about 30 percent. But, Marria is quick to admit the market is small and it’s becoming somewhat saturated.

“Our service and quality will continue to grow; that’s how we will continue to offset the competition.”

With his increasing managerial responsibilities, Marria does admit missing being out in the field and dealing with people.

Looking back on his experiences and on starting a business, Marria says two things have definitely changed about him.

“I’ve become a much better businessman. Now there is more and more of a need to do things right. My decisions have a major impact on the future of this company.” He pauses and adds with a smile, “I’ve also gotten a lot more grey hair.”

WT&T
Ever-Green’s Gold
The largest lawn care company in Colorado attributes its success to knowing its territory and delivering a quality product.

by Ron Hall, assistant editor

You can tell the boss from the others because he’s the only guy wearing bluejeans.

Richard “Dick” Miller, the boss of Ever-Green Lawns, stepped from his office wearing jeans with his sportcoat, a tipoff of sorts that in spite of being the owner and operator of the biggest lawn care business in Colorado, he’s about as down to earth as a person can get.

How much more down to earth do you want?

Son of an Iowa farmer, Iowa State University ag graduate, “I would have preferred to have farmed but I was pretty sure I was going to be broke the rest of my life,” he says almost wistfully; and, at the relatively young age of 36, he isn’t ruling out some farming yet which would be good news for his competition in the front range of the Rocky Mountains which, when the sun is setting nice and big and red, throw a heck of a shadow well out over the lawns of Miller’s 40,000 lawn care customers.

Discard any notions about plans for Miller’s imminent retirement, however. His lawn care company is prospering with five branch operations serving customers from Fort Collins to Colorado Springs. Ever-Green Lawns employs 300 and uses more than 70 pieces of equipment.

In spite of his background—or, more correctly because of it—Miller is certainly no hayseed, a hard worker for sure, but no rube. He’s the kind of guy who believes in getting to work at 8 a.m. and putting in a full day, which is what he expects from his employees as well. He’s also a man who believes in his business instincts, then acts on them although he downplays this.

“A lot of us in the lawn care industry have roots in agriculture,” he says. “I guess we bring that hard work philosophy of agriculture into this business. Iowa agriculture just seems to breed a bunch of workaholics.”

Chuck Kirkpatrick, who does consulting work for Miller, revealed the other side of his client, “He’s willing to take risks for the payoffs. He creates an atmosphere that we like. It’s a fast-paced, entrepreneurial atmosphere.”

“I would have preferred farming, but was pretty sure I’d be broke the rest of my life.”

Richard Miller, owner of Ever-Green, is a self-confessed workaholic.

Revolutionary new truck
In line with that assessment is Miller’s latest project, the development and manufacture of a stainless steel tank truck specifically designed for the lawn care industry by Denver Leasing and Manufacturing, the manufacturing arm of Ever-Green Lawns. Like the lawn care business, it too is based in Golden on the fringes of Denver.

“I think this (truck) will be a big deal for us,” Miller says. “We’ve entered the marketplace and we will have a booth in Tampa (Professional Lawn Care Association of America Show Nov. 12-15). I think we’ve got a better mousetrap and we’ve accomplished what we set out to do—to produce an extremely high quality item.”

The truck, designed and engineered by Bob Smith and Steve Tangsrud, features a low center of gravity, automatic transmission, power steering and handles beautifully, Miller explains, while cutting maintenance and fuel costs in half over models presently in use. “This fits into our philosophy of minimum maintenance. We’re not in the lawn business to maintain trucks. We’re in business to satisfy customers,” he adds. “It (the truck) is a little bit more expensive, but a lot less costly to maintain.”
New Du Pont Landscape Fabric.
It lets water through to give you healthier beds with less work.

New DuPont Landscape Fabric lets water pass through, reduces wash-away of mulch while it impedes weed growth. So you get healthier, more attractive plant beds with less maintenance work and cost.

Everything you apply for bed care gets to plant roots in the amount you want, where you want it. Water, fertilizers, herbicides and pesticides seep down through this chemically inert fabric to nourish and protect every plant in your bed.

DuPont Landscape fabric is easy to put down with scissors or knife. It comes in four roll sizes from 3- to 12-feet wide.

Call 800-441-7515 for the name of the nearest distributor and more information about DuPont Landscape Fabric. Or write DuPont Company, Room G40955, Wilmington, DE 19898.

Circle No. 109 on Reader Inquiry Card
Ever-Green’s client list is more than 40,000 strong.

Another related venture is Ever-Green’s liquid organic soil builder, Revive, which is sold commercially as well as used extensively in Miller’s lawn maintenance business. Last winter Ever-Green purchased Revive from Amesco of Denver. Miller’s company had been using the soil builder Revive, composed of plant bi-products, decomposition extracts, and fuluohumates, extensively to improve water penetration into Colorado’s hard clay soils for some time.

The truck and Revive ventures are in line with Ever-Green’s do-it-yourself, take-control reputation, evident in the Golden sales and production office which, besides the usual array of offices, is equipped with a full-service garage and paint room, printing office, and conference room.

Pivotal year
This year marks Miller’s tenth year in the lawn care business and unquestionably a pivotal one. He became aware of the industry as an agricultural sales consultant for Dow Chemical, came to Denver in 1974 with two partners to start the business as part of Ever-Green of St. Louis and Kansas City, and in 1980 Ever-Green Lawns Corporation in Colorado separated itself completely from the other Ever-Green. The two are not related now.

Miller remembers his step into the lawn care business 10 years ago. “I had a career decision to make. I could have moved to New Jersey, gone back to the farm, or...” The rest is history.

Starting out on what had been a small truck farm in the nearby community of Welby (“you needed strong legs and a loud voice to communicate,” one associate recalls) Miller’s business grossed $170,000 that first year. Ever-Green, with branches in Aurora, Golden, Colorado Springs, Littleton, and Windsor, is looking at a gross of about $7 million in 1984.

Pattern for success
“A couple of things allowed us to grow,” Miller explains. “The largest thing was just being locally owned and being able to respond to the needs of the Denver area. We were perceptive enough to figure out the differences in this area as opposed to others. With our continuous irrigation throughout the year we have to apply heavy amounts of fertilizer all year long. We got that under control with sulfur-coated urea.”

Ever-Green started buying sulfur-coated urea from Canada in 1976 (“it meant you could put down more fertilizer in the summer and reduce the risk of burning,” he explains) and the lawns maintained by Ever-Green looked better. Miller is convinced it is better to “put down more, charge more and give the customer a lawn that beats the hell” out of the neighbor’s lawn.

“Our success is due to our employees,” Miller emphasizes. “I’ve got a bunch of neat people. A lot of them have been around here for ages and I guess I feel it’s been the growth of the entire organization that has made it successful.”

Perhaps the most visible member of Miller’s management team the past five years has been staff horticulturist Herb Gundell who was extension agent 30 years for Denver County prior to joining Ever-Green. In addition to putting together three weekly radio spots, Gundell’s weekly television show about lawns and gardens is the longest-running television program in Denver. “Anytime you get that kind of run you’re very visible,” Miller says. “He’s a very important part of our organization.”

Miller feels the big growth in the Denver lawn care market has peaked, “maxed out,” as he puts it. “We’ll swap customers and we’ll either increase or decrease depending upon the degree of service we provide.”

Future plans for Ever-Green?
“There’s potential expansion into the tree and shrub business,” Miller reflects. “Maybe lawn care in other areas, other states, Dallas maybe. Our expansion plans are kind of in limbo.”

As for Miller, with his business now bigger than most of the others in the Denver area combined and the new lawn maintenance truck ready to make its mark on the industry, the farm will have to wait.

“I guess you could probably say I am involved in farming in a way,” he reflects.
UNBEATABLE CUT, UNBEATABLE PRICE.

INTRODUCING THE LOCKE PROFESSIONAL.

Locke, the name that revolutionized the home landscape industry with the technologically revered triplex reel mowers, is making news again! Introducing the new Professional. The first Locke mower designed especially for large grounds where a precision cut is mandatory, like golf courses, playing fields and other fine grounds.

THE FIRST REEL MOWER WITH A REAL DIFFERENCE.

Up until now, the only way to get a superior, high-quality cut was to buy an expensive hydraulic reel mower. The Locke Professional has changed this. The Professional has a proven mechanical cutting system that delivers a great looking turf that is sure to meet the standards of even the most discriminating golf course superintendents.

Incredibly, the Professional delivers this unbeatable cut at an unbeatable price. With the Professional, you can save thousands of dollars versus the cost of hydraulic reel mowers.

BUILT STRONG FROM THE INSIDE OUT.

One look at the Locke Professional and you know it was built with extraordinary quality...engineered for reliability and durability. The Professional offers a broad range of features designed to give you maximum performance: %t–2½ inch cutting height, up to 87 inch cutting width, grass catchers and micro-reel adjustments. Features that will help you cover more ground in less time.

If you’re considering a new mower, discover the reel mower with a real difference. Discover the Locke Professional and get an unbeatable cut at an unbeatable price.

Contact Locke for your local authorized dealer, today, at (203) 333-3157, 1100 Boston Avenue, Bridgeport, CT 06610

Circle No. 254 on Reader Inquiry Card
The Black Box

An Iowa contract applicator has improved his company's image and his spraying accuracy by using a sprayer controller. This "black box", Rod Foster thinks, could change the lawn care industry.

The sprayer controller "black box" may become to the turf market what it has become to agriculture, more a necessity than a luxury.

Rod Foster is partner with his father, Verne, in Turf Control, based in Waterloo, IA. The younger Foster started the business three years ago. The company now employs six people.

Turf Control's client list includes schools, hospitals, churches and residential accounts covering about 2,000 acres. Foster says he does about 75 percent commercial work and 25 percent residential.

Foster's company is involved in several turf care markets, including residential lawn care, football field maintenance in Eastern Iowa, care of commercial properties such as hospitals, schools and local businesses, custom application for golf courses and many other accounts.

He contends the application accuracy he achieves with his controller is helping build a reputation of high competence for his company.

"I'm in exact compliance with the label and minimize application errors caused by inaccurate equipment calibration," Foster explains. "With the kinds of results possible, I think more people in the turf care industry may soon be using them.

"With this guaranteed accuracy, Foster says he can project a more professional image, he is able to maintain better cost control and he can even serve the environment by guarding against misapplication.

Foster, left, and Mike Wienands adjust the pneumatic no-drip nozzles on their unit. In inset, controller system is mounted within easy reach in the cab of the pick-up sprayer.
Foster's unit sees most of its use on commercial accounts of one to one-and-a-half acres.

In the two seasons Foster has used the electronic sprayer controller system, his average percentage of application error has been just less than three percent.

"On level terrain with few or no obstacles such as a football field, I can come within .03 percent of the target rate," he claims. The University of Nebraska says that application errors of plus or minus 10 percent are considered acceptable for any spray application.

"The accuracy I achieve with the controller assures the results I demand when I bid the job," Foster says. "I can guarantee my work with confidence. There have been times when I have bid jobs higher than the competitors, but the accuracy sells the job."

Foster used a Raven SCS 400 system in 1983 before upgrading to the SCS 440 this season. Both units are controllers, providing automatic control of application rates, maintaining the target flow regardless of vehicle speed.

Virg Huebner, chief engineer for Raven Industries explained the difference between monitors and controllers.

"The monitor only determines what is happening and tells the operator, usually with a digital display showing the gallons per acre (GPA) being applied, what it sees. The monitor does not adjust the flow rate for the operator."

"The controller, however, measures what is happening and uses a motor-driven control valve to adjust spray pressure and compensate for changes in ground speed," Huebner said. "These units thereby maintain the selected application rate at all times."

Controller systems basically consist of only four components:
- a console keyboard, the "brains of a system"
- a flow meter, measuring actual flow vehicle speed
- a speed sensor, measuring actual vehicle speed
- a control valve, motorized for fast pressure adjustment.

"The accuracy I achieve with the controller assures the results I demand when I bid the job."

The flow meter and speed sensor send their information to the console, which relays the proper adjustment information to the control valve.

"Any deviation from the pre-programmed GPA is adjusted for by the control valve which adjusts the flow pressure in order to keep the actual GPA constant," Huebner says. A spray unit equipped with the sprayer controllers sees most of its use on commercial accounts of one to one-and-a-half acres and more. He thinks it's worth using the unit on any tract of land where obstacles can be worked around, simply because of the assurance of an accurate application.

Another aspect Foster tries to stress to customers is environmental. He believes misapplication is a threat to the entire fertilizer and chemical industry as environmental agencies become more concerned with the number of individuals who do not apply within the guidelines of the product labels.

"As an operator, the biggest environmental threat of course, is misapplication," Foster contends. "I push the advantages of using electronic controllers from an environmental standpoint because it is the only sure way of documenting that you are within environmental and labeled safety guidelines. I can be positively sure that I'm putting on legal labeled rates at the proper intervals."
Introducing...
the new broad-spectrum vegetation control
that treats the environment with respect

New ARSENAL® herbicide controls more unwanted vegetation species than any other product and many tank mixes. But equally important, ARSENAL also respects the environment. It's a completely new class of chemical that offers this unique combination of advantages:

- **Sure, powerful control**
  ARSENAL works by both contact and residual action. It's absorbed by roots and foliage of target plants within 4 hours; and it's not then washed away by rain.

- **Broad spectrum**
  ARSENAL controls more undesirable plant species than any other vegetation control method. It even gets woody vines and perennial grasses such as Trumpetcreeper and Johnsongrass.

- **Stable in the spray tank**

- **Full-season control**
  A single application of ARSENAL eliminates existing weeds and provides residual control of newly-germinating vegetation for the balance of the growing season.

- **Non lateral movement**
  ARSENAL does not move laterally in the soil.

- **Not harmful to the environment**
  When used according to label directions, ARSENAL has been shown to present no hazard to humans, warm-blooded animals, fish or bees.

- **No quick, unsightly brown-out**

- **Flexible application timing**
  ARSENAL herbicide can be applied at any time during active growth.

- **Non-volatile and non-flammable**
  ARSENAL is the ideal herbicide for controlling vegetation along railroads, right-of-ways, utility lines, and other industrial uses. It's the first total vegetation herbicide to come along in over a decade.

For more information, write to ARSENAL® herbicide, Box 8024, Trenton, NJ 08650, and ask for the ARSENAL brochure, #PE 11008. Read and follow label directions carefully.
Fine fescues are an under-utilized, often ignored group of grasses that have great diversity and much greater turfgrass potential than generally recognized.

They are basically cool-season grasses, but they are found growing readily throughout much of the temperate region of our continent, from the mountains of New Mexico and coastal marshes of Georgia to the colder regions of our hemisphere.

Creeping red fescue seed from the Pacific Northwest, Canada and Europe, and Chewings fescue from New Zealand and the Northwest have been marketed since the 1940's. A Rhode Island Agricultural Experiment Station lawn seed mixture, formulated in the 1930's, listed Chewings and creeping red fescues as a major ingredient.

Attributes
The improved fine fescues, as a group, have many remarkable attributes that make them first-rate lawn grasses. In general usage they are used in mixtures with other grasses, such as Kentucky bluegrass, perennial ryegrass or bentgrasses. They produce beautiful turf in pure stands but their versatility and desirable attributes may be enhanced in mixtures.

The versatility of general seed mixtures containing fine fescue is greatly broadened because of the wide adaptability of the species. Fine fescues will tolerate a wide range of

Landscape Manager’s Guide to:
Fine Fescues

by C. R. Skogley, Professor, Turfgrass Management, University of Rhode Island, Kingston, RI

Chewings fescue survives shade where Kentucky bluegrass in home lawn failed. Extensive rhizomes in older creeping red fescue plants prove its spreading nature. (See inset)
light conditions, from full sun to fairly dense shade. They grow well on soils too light and sandy, infertile and acidic, for most cool-season lawn grasses and grow even better on good soils. They tolerate dry soils but do poorly on wet soils. They perform well on roadsides with infrequent mowing yet some of them will perform well on golf course fairways at a height of 1/2 to 3/4 inches.

Under turf conditions, fine fescues are of delicate texture. They can form dense stands with brilliant shades of green and, because of texture and color, they also blend well with most other cool-season grasses.

Seed of fine fescue is of medium size, ranging from 500,000 to 800,000 seeds per pound. They are small enough to be a bargain by the pound yet large enough to pack sufficient reserves for good seedling vigor.

Germination of fine fescue seed, under favorable soil temperature, requires from 5 to 12 days, almost as rapid as perennial ryegrass. This is a significant plus when used in mixtures with slower establishing Kentucky bluegrass. Because of the very fine leaf texture of these grasses, they are not overly competitive in the seedling stage.

Fine fescue seed for domestic use is currently grown primarily in the Pacific Northwest and in the Canadian Provinces of Alberta and British Colombia. The improved varieties currently being marketed are grown almost exclusively in the U.S. Pacific Northwest.

**Improvement in 60's**

The first significantly improved turfgrass was Merion Kentucky bluegrass, released in the 1950's. Improved fine fescues did not appear until in the late 1960's.

Fine fescue trials containing 23 cultivars were established at the Rhode Island station in 1968. Results obtained over the next five years clearly demonstrated genetic improvement over any material commercially available at that time.

Common Chewings fescue such as Cascade and the Pennlawn variety of creeping red fescue were the best materials available during the 1960's. Astonishing differences were noted between these standards and some of the new cultivars included in those 1968 trials.

Table 2 contains quality score data from three Rhode Island trials. It is interesting, and important, to note that the improvement occurred with Chewings and hard fescue and not with creeping or spreading types. Note also that many of the cultivars performed as well in these trials at a 1/4-inch cutting height as they did at 1/2 inches.

These were irrigated trials receiving 2-3 pounds of nitrogen per 1,000 square feet annually. The three trials encompassed a period of 15 years. The 53 varieties listed are only some of those tested and those with experimental designation were not included in Table 2.

We currently have a single trial, established in 1983, that includes 85 named and experimental cultivars of fine fescue. This is an indication of the increasing interest among plant breeders and demonstrates a strong feeling for the potential of these grasses.

Because of the heterozygous nature of the fescues it is possible to observe greater differences within a variety than between varieties. Under turf conditions, it is often difficult to see clear-cut differences among many varieties at any given time. Differences in cultivar performance can be documented. Creeping and spreading fescues are generally coarser than the other fescues and are capable of greater lateral growth through the production of short rhizomes. Stands tend to be more open than with Chewings or hard fescue.

Improved Chewings and hard fescues develop dense stands through the production of numerous basal tillers. Hard fescue often has a slightly duller hue than Chewings but may hold its color through periods of high summer temperatures better than other grasses. Hard fescue also seems to be more tolerant of high salt concentrations in the soil than creeping, spreading or Chewings fescues.

Seed production of hard and sheeps fescue has been more difficult and costly than with Chewings or creeping red fescue, thus making seed more expensive. Efforts are underway to minimize this added cost.

Sheep's fescue, Pseudovina and

---

**TABLE 1**

**Characteristics of Fine Fescues**

<table>
<thead>
<tr>
<th>Type</th>
<th>Species</th>
<th>Height</th>
<th>Spread</th>
<th>Leaf Texture</th>
<th>Chromo. No.</th>
<th>Hour of Typical Flower</th>
<th>Typical Varieties</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chewings</td>
<td><em>F. rubra</em> L. subsp. commutata Gaud.</td>
<td>low</td>
<td>v. little</td>
<td>fine</td>
<td>42</td>
<td>6 a.m.</td>
<td>Highlight</td>
<td>lt. green dk. green med. green</td>
</tr>
<tr>
<td>Creeping</td>
<td><em>F. rubra</em> L. subsp. trichophylla Gaud.</td>
<td>med.</td>
<td>little</td>
<td>med.</td>
<td>42</td>
<td>2-4 p.m.</td>
<td>Dawson</td>
<td>med. green lt. green</td>
</tr>
<tr>
<td>Spreading</td>
<td><em>F. rubra</em> L. subsp. rubra</td>
<td>mod.</td>
<td>good</td>
<td>broader (like Ky. bluegrass)</td>
<td>56</td>
<td>3-5 p.m.</td>
<td>Fortress</td>
<td>dk. green dk. green dk. green</td>
</tr>
<tr>
<td>Hard</td>
<td><em>F. longifolia</em> Thull.</td>
<td>low</td>
<td>v. little</td>
<td>fine</td>
<td>42</td>
<td>6-8 a.m.</td>
<td>C-26</td>
<td>dk. green</td>
</tr>
<tr>
<td>Sheeps</td>
<td><em>F. ovina</em> L.</td>
<td>low</td>
<td>v. little</td>
<td>wiry</td>
<td>28,42</td>
<td>12 noon</td>
<td>none available</td>
<td>blue-green</td>
</tr>
<tr>
<td>Pseudovina</td>
<td><em>F. pseudovina</em></td>
<td>low</td>
<td>v. little</td>
<td>f. wiry</td>
<td>14</td>
<td>Barok</td>
<td>Vendome</td>
<td>v. lt. green</td>
</tr>
<tr>
<td>Fine-leaved sheeps</td>
<td><em>F. tenutafolia</em> Sibth.</td>
<td>low</td>
<td>v. little</td>
<td>f. v. fine</td>
<td></td>
<td></td>
<td>Barok</td>
<td>lt. green</td>
</tr>
</tbody>
</table>

BUNTON: WHEN YOU KNOW ONE...

Variable speed drive on tractors and self-propelled mowers independent of engine and blade-tip speed.

Finger-tip steering on self-propelled mowers and precision steering gear on tractors for highest maneuverability.

Blade engagement control.

Commercial engines matched to mower size and mowing conditions.

Wide range of cutting heights.

Close trimming deck designs.

Turf wheels available on 36 inch widths and up negotiate rough terrain. Wheels for fine lawns available on 52 inch widths and smaller.

Pneumatic tires with puncture proof sealant on 32 inch widths and up.

Roller bearing and grease fittings.

Heavy gage welded steel construction. Reinforced at stress points.

Suction-lift, sickle steel blades mulch and discharge clippings evenly to right hand side.

Large selection of cutting widths.

Contract numbers:
G.S.A.: GS-07F-10956
YOU KNOW THEM ALL.

If you've ever been around people who are bragging about their "Bunton", you know how zealous they can be. The dependability... the fuel efficiency... the performance... the price... nothing but rave reviews.

Bunton builds 108 different mowers, each with different features to solve a specific lawn maintenance problem. The good news is that all Bunton lawn maintenance equipment is built the same way, whether you need turf tractors, self-propelled mowers, push mowers or edgers/trimmers.

Bunton builds specifically—and nothing but—high quality lawn and turf maintenance equipment. When you discover Bunton, you will understand why these mowers are the professionals' best friend.

Get to know one... today.

Bunton builds 'em better!

BUNTON CO.

P.O. Box 33247
Louisville, KY 40232 U.S.A.
Phone 502/966-0550 • Telex 204-340
Circle No. 105 on Reader Inquiry Card
### TABLE 2
Turf Quality Scores of Fine Fescues in Three Regional Trials at the Rhode Island Agricultural Experiment Station from 1969 - 1982

<table>
<thead>
<tr>
<th>Selection and Type</th>
<th>1968 Trial 5 Yr Mean</th>
<th>1972 Trial 4 Yr Mean</th>
<th>1977 Trial 5 Yr Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3/4&quot; cut 1 1/2&quot; cut</td>
<td>3/4&quot; cut 1 1/2&quot; cut</td>
<td>1 1/2&quot; cut</td>
</tr>
<tr>
<td>Jamestown - C</td>
<td>7.0</td>
<td>5.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Atlanta - C</td>
<td>6.7</td>
<td>5.8</td>
<td>—</td>
</tr>
<tr>
<td>Koket - C</td>
<td>6.1</td>
<td>5.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Biljart- H</td>
<td>5.8</td>
<td>5.5</td>
<td>—</td>
</tr>
<tr>
<td>Barfalla - C</td>
<td>6.0</td>
<td>5.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Halifax - C</td>
<td>5.3</td>
<td>5.4</td>
<td>—</td>
</tr>
<tr>
<td>Erika - C</td>
<td>5.8</td>
<td>5.3</td>
<td>—</td>
</tr>
<tr>
<td>Cascade - C</td>
<td>4.5</td>
<td>4.0</td>
<td>—</td>
</tr>
<tr>
<td>Highlight - C</td>
<td>5.5</td>
<td>4.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Pennlawn - CR</td>
<td>4.7</td>
<td>4.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Chewings - C</td>
<td>4.1</td>
<td>4.3</td>
<td>—</td>
</tr>
<tr>
<td>Oasis - C</td>
<td>4.2</td>
<td>3.9</td>
<td>—</td>
</tr>
<tr>
<td>Oregon D - C</td>
<td>3.4</td>
<td>3.6</td>
<td>—</td>
</tr>
<tr>
<td>Barbantia - C</td>
<td>4.5</td>
<td>3.5</td>
<td>—</td>
</tr>
<tr>
<td>Wintergreen - C</td>
<td>4.2</td>
<td>3.4</td>
<td>—</td>
</tr>
<tr>
<td>Bargena - CR</td>
<td>3.1</td>
<td>3.1</td>
<td>—</td>
</tr>
<tr>
<td>Tjelvar</td>
<td>3.1</td>
<td>3.1</td>
<td>—</td>
</tr>
<tr>
<td>Agio - CR</td>
<td>2.3</td>
<td>3.0</td>
<td>—</td>
</tr>
<tr>
<td>Novorubra - CR</td>
<td>2.4</td>
<td>2.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Ruby - CR</td>
<td>3.3</td>
<td>2.8</td>
<td>—</td>
</tr>
<tr>
<td>Barenza - S</td>
<td>2.1</td>
<td>2.2</td>
<td>—</td>
</tr>
<tr>
<td>Durlawn - CR</td>
<td>—</td>
<td>3.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Jade - C</td>
<td>—</td>
<td>5.3</td>
<td>6.3</td>
</tr>
<tr>
<td>Barok - S</td>
<td>—</td>
<td>2.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Menuet - C</td>
<td>—</td>
<td>6.1</td>
<td>6.7</td>
</tr>
<tr>
<td>Encota - C</td>
<td>—</td>
<td>4.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Flavo - C</td>
<td>—</td>
<td>4.0</td>
<td>4.3</td>
</tr>
<tr>
<td>Banner - C</td>
<td>—</td>
<td>6.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Oregon K - C</td>
<td>—</td>
<td>5.1</td>
<td>5.5</td>
</tr>
<tr>
<td>Dawson - CR</td>
<td>—</td>
<td>3.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Scaldis - H</td>
<td>—</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Waldorf - C</td>
<td>—</td>
<td>5.1</td>
<td>5.5</td>
</tr>
<tr>
<td>Scarlet - C</td>
<td>—</td>
<td>3.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Roda - CR</td>
<td>—</td>
<td>3.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Boreal - CR</td>
<td>—</td>
<td>3.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Duraturf - CR</td>
<td>—</td>
<td>3.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Polar - C</td>
<td>—</td>
<td>5.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Ilona - C</td>
<td>—</td>
<td>—</td>
<td>6.2</td>
</tr>
<tr>
<td>Famosa - C</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Agram - C</td>
<td>—</td>
<td>—</td>
<td>6.4</td>
</tr>
<tr>
<td>Grel - C</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Sonnet - CR</td>
<td>—</td>
<td>—</td>
<td>4.9</td>
</tr>
<tr>
<td>Kensington - CR</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Silyana - H</td>
<td>—</td>
<td>—</td>
<td>5.0</td>
</tr>
<tr>
<td>Waldina - H</td>
<td>—</td>
<td>—</td>
<td>6.6</td>
</tr>
<tr>
<td>Tournament - H</td>
<td>—</td>
<td>—</td>
<td>7.2</td>
</tr>
<tr>
<td>Engina - CR</td>
<td>—</td>
<td>—</td>
<td>5.4</td>
</tr>
<tr>
<td>Enzet - CR</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Gracia - CR</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reneva - S</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reptans - CR</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Creeping Red - CR</td>
<td>—</td>
<td>—</td>
<td>3.7</td>
</tr>
<tr>
<td>Ensylvra - CR</td>
<td>—</td>
<td>—</td>
<td>5.2</td>
</tr>
</tbody>
</table>

1 Scoring system used is 9 for perfect quality and 1 for dead turf or bare ground. 2 C — Chewings, CR — Creeping Red, H — Hard, S — fine-leaved sheep's.

**Seeding and establishment**

In mixtures with Kentucky bluegrass and/or perennial ryegrass, as much as 50% creeping or spreading fescues by weight appears proper. With Chewings or hard fescues, 20% is often adequate as these grasses become much more competitive. Greater amounts of fescue seed may be used for shade mixes.

Methods of establishment are similar to those for most turf grasses. Seedlings respond well to establishment fertilizer.

**Maintenance**

The fine fescues generally mow cleanly and require less management when mowed at heights above one inch than when cut to lower heights. During periods of heat or drought stress, the grasses mow less cleanly and stand appearance may decrease in quality.

Improved varieties are similar to modern Kentucky bluegrasses in their response to heat, dryness and cold. They may go into semi-dormancy during periods of summer or winter stress, but recover readily when growing conditions improve.

The fescues are tolerant of normal summer heat, if moisture is available, and they are extremely winter hardy. Improved varieties hold their color into the winter and are among the earliest of turf grasses to green-up and resume growth in late winter and early spring.

Fine fescues will tolerate drought and persist on much drier soils than will most other cool-season turf grasses. This is a valuable attribute in a time when water is becoming more precious.

Fine fescues are among the most shade tolerant of our lawn grasses but they do not persist long on wet soils whether in sun or shade. When grown in the shade, cutting height should be above two inches and stands should not be fertilized during the warmer months. In fact, feeding once a year, during September or October may be adequate and even optimum for fescues grown in the shade.

Fertility requirements of the fine fescues in all locations are minimal. Once established, one to three pounds of fertilizer should be applied in the spring and fall.
The pros chose SHADOW

‘As professional lawn care specialists, we want our customers’ lawns to advertise for us. One of the major problems we find in many of our customers’ lawns is stressed areas under and around shade trees. We formulated our Prograss lawn overseeding mix to remedy these difficulties. For our shade mix we chose 90 percent Shadow Chewings Fescue and 10 percent A-34 bluegrass. We see exceptional results when proper overseeding procedures are followed. Shadow makes us look good, too.”

Mike Erb
Prograss Lawn Service
Field Representative and licensed applicator.

Shadow is a new variety of Chewings type fine fescue developed for improved shade tolerance and resistance to powdery mildew. Breeding for these attributes was a long and tedious job, but the results were better, stronger turf than the old line fescues. Insist on the seed the pros choose for your shade mix.

“The hottest shade tolerant fine fescue under the sun”
The problem with most mowers is they spend too much time in the shop and not enough time on the job. You won't find that with Toro's new 36" and 52" commercial walk rotary mowers. Because we build them with the same durability we build in our commercial riding mowers. For instance, we gave them an actual 4-speed transmission with neutral and reverse. So they won't lock into a single speed like some variable speed pulley systems. And, knowing the continual problems you have with belts breaking, we added a much wider traction belt that's designed to last the life of the machine. We also eliminated an idler pulley on the deck drive belt, to make it last longer, too. Even the
cutting spindles are engineered and protected to better withstand the shocks and jolts of everyday cutting.

While we were making our new commercial mowers tougher, we decided to make them more productive, as well.

We gave them a floating deck, same as our Groundsmasters', so they'll follow the contours of the terrain while minimizing scalping.

We made it possible to change the height of cut in a minute by simply moving four pins.

And we came up with a new steering design that makes it easier to maneuver around trees, shrubs and other obstacles. You simply push the steering bar to mow, and release it to stop.

If our commercial walk rotary mowers are beginning to sound like no other walk rotary mowers you've ever seen—maybe it's because they are. Visit your Toro distributor soon. He can fill you in on all the details.

Whichever one you choose, it'll keep you cutting yard after yard, year after year.

The professionals that keep you cutting.
**Why take chances?** There's a new tall fescue whose superior turf quality, disease resistance and dark green color make it a breed apart from the others. Mustang's high seedling vigor and excellent heat and drought resistance make it the one you can bet on. So, don't try your luck—try Mustang.

**TABLE 3**

**Available Fine Fescues**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Producer</th>
<th>Circle No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dawson</td>
<td>Northrup King</td>
<td>190</td>
</tr>
<tr>
<td>Flyer</td>
<td>Turf Seed</td>
<td>192</td>
</tr>
<tr>
<td>Ensylva</td>
<td>International Seed</td>
<td>191</td>
</tr>
<tr>
<td>Fortress</td>
<td>Turf Seed</td>
<td>192</td>
</tr>
<tr>
<td>Pennlawn</td>
<td>public</td>
<td>000</td>
</tr>
<tr>
<td>Ruby</td>
<td>Northrup King</td>
<td>190</td>
</tr>
<tr>
<td>Agram</td>
<td>Pickseed</td>
<td>193</td>
</tr>
<tr>
<td>Atlanta</td>
<td>Northrup King</td>
<td>190</td>
</tr>
<tr>
<td>Banner</td>
<td>Scotts</td>
<td>194</td>
</tr>
<tr>
<td>Highlight</td>
<td>International Seed</td>
<td>191</td>
</tr>
<tr>
<td>Jamestown</td>
<td>Lofts</td>
<td>195</td>
</tr>
<tr>
<td>Kokel</td>
<td>Burlingham</td>
<td>196</td>
</tr>
<tr>
<td>Shadow</td>
<td>Turf Seed</td>
<td>192</td>
</tr>
<tr>
<td>Waldorf</td>
<td>Pioneer Hi-Bred</td>
<td>197</td>
</tr>
<tr>
<td>Aurora Hard</td>
<td>Turf Seed</td>
<td>192</td>
</tr>
<tr>
<td>Azay Sheeps</td>
<td>Pickseed</td>
<td>193</td>
</tr>
<tr>
<td>Biljart Hard</td>
<td>Scotts</td>
<td>194</td>
</tr>
<tr>
<td>Reliant Hard</td>
<td>Lofts</td>
<td>195</td>
</tr>
<tr>
<td>Scaldis Hard</td>
<td>Northrup King</td>
<td>190</td>
</tr>
<tr>
<td>Tournament Hard</td>
<td>Pickseed</td>
<td>193</td>
</tr>
<tr>
<td>Waldina Hard</td>
<td>Turf Seed</td>
<td>192</td>
</tr>
</tbody>
</table>

Produced by: Pickseed West Inc.

© 1984, Pickseed West, Inc.

Soft or lush condition that makes the grass much more disease susceptible. While these fescues are fairly resistant to many lawn diseases, they are most frequently injured by red thread or pink patch and leaf spot. Red thread or pink patch are more serious when fescues are underfed and leaf-spot may be more serious when the turf is over-fertilized. A modest, but not excessive and properly timed fertilizer program provides the best insurance against serious disease problem.

The fine fescues are subject to injury by all of the normal turfgrass insects: including beetle grubs, chinch bugs, sod webworms and cut worms.

Since the most improved of the group are Chewings and hard fescues which do not spread by rhizomes, insect injury can be serious. Damaged areas are very obvious and recovery is slow. This is one reason why fescues are best mixed with sod-forming grasses such as Kentucky bluegrass.
Alone or in a mixture, Oregon fine fescue rates another look

When a turf area thrives around trees; requires relatively little water, fertilizer and sunlight, yet maintains a picture perfect appearance, it's fine fescue. If it germinates and performs better than imported varieties, it's Oregon grown fine fescue. If it's found in parks, golf courses, home lawns, industrial campuses and anywhere a fine textured turf is desired, it's Oregon grown fine fescue for sure!

For a series of eight tech sheets on Oregon grown chewings and creeping red fescues, call or write

OREGON FINE FESCUE COMMISSION
2140 Turner Road SE
Salem, OR 97302
503/585-1157

Circle No. 135 on Reader Inquiry Card
The golf car is becoming somewhat more than what its name implies as several manufacturers, in a convincing show of optimism, unveil new top-of-the-line models aimed at getting from Point A to Point B (and not necessarily from tee to green) in style.

1985 looks like a good time, several manufacturers are betting, to enter markets created by the growth and increased popularity of retirement and planned communities.

Joining longtime luxury car maker Elmco with eye-catching models are Yamaha with its sleek Sun Classic and American Continental with its scaled down version of the classic Model T, the Mini T.

"The market seems very strong and we just viewed it as another opportunity. The timing seems good for a variety of applications for our new cars," Gary Jones, manager Leisure Products Division of Yamaha, says. "The market is becoming more segmented and basically it's hard to cover all the different kinds of demands with just two models."

Manufacturers realize there is a limited but potentially lucrative market in planned, self-contained residential and resort communities built around golf courses and shopping complexes.

American Continental's Mini-T comes complete with such amenities as an oak dash, AM/FM radio, horn, lights, and turn signals. Available in four colors and in either gas or electric models, the Mini-T has been in full production for almost a year. With a base price of $5,900, the Mini T is definitely not your run-of-mill golf car.

"Some of the golf car market is not affected as much by economics as much as by the weather," one industry spokesman explains. "It's something like owning a boat. If you can afford to own a boat, you don't worry about buying gas for it."

Prestige car maker Elmco is picking up new distributors in its quest for more effective marketing strategies, company spokesman Ed Rutkowske says, and that Illinois-based company is looking forward to a "fantastic" 1985.

But, with an estimated 75,000 new golf cars being sold annually, the bread and butter of the industry will obviously continue to be the utilitarian fleet vehicle; and manufacturers continue to tinker with the design and mechanics of their best selling models to make them both more appealing and efficient.
Great Versatility. Start with a 30", 40" or 50" mower specially designed to give a smooth quality cut. Then choose from over 20 attachments custom engineered to give year-round professional results, whether you're mowing grass, cutting high weeds, or removing deep snow. You can get a steering brake kit to increase maneuverability and add a sulky to cover the big jobs in comfort.

Great Durability. You'll get season after season of reliable performance. Our 2-wheel tractors are built with all-gear direct drive transmissions, rugged Kohler engines and strong cast-iron transmission housings. Stop at your Gravely dealer for a hands-on demonstration. Or for more information, contact Rick Murray, VP, Marketing, Gravely International, Inc., One Gravely Lane, Clemmons, NC 27012. 919-766-4721. Telex: 6971451 ARGRA.
### 1985 Golf Car Guide

<table>
<thead>
<tr>
<th>Model</th>
<th>Engine</th>
<th>Payload</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Continental Inc.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Box 280</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willmar, MN 56201 (612) 235-1752</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Club Car</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.O. Box 4658</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Augusta, GA 30907 (404) 865-3000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Columbia Car Corp.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.O. Box 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deerfield, WI 53531 (809) 764-5474</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E-Z-Go/Textron</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.O. Box 388</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Augusta, GA 30913 (404) 768-4311</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Melex USA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1201 Front St</td>
<td>152</td>
<td>electric</td>
<td>500 lbs.</td>
</tr>
<tr>
<td>Raleigh, NC 27609 (919) 828-7645</td>
<td>252</td>
<td>electric</td>
<td>500 lbs.</td>
</tr>
<tr>
<td><strong>Ross Products</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>145 NW 20th St</td>
<td>Legend RV3</td>
<td>electric</td>
<td>750 lbs.</td>
</tr>
<tr>
<td>Boca Raton, FL 33431 (305) 395-4444</td>
<td>Legend RV4</td>
<td>electric</td>
<td>750 lbs.</td>
</tr>
<tr>
<td><strong>Yamaha Motor Corp.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6555 Katella Ave</td>
<td>G1-AM5</td>
<td>electric</td>
<td>1,000 lbs.</td>
</tr>
<tr>
<td>Cypress, CA 90630 (714) 761-3000</td>
<td>G1-EM5</td>
<td>electric</td>
<td>1,000 lbs.</td>
</tr>
<tr>
<td></td>
<td>G2-A5</td>
<td>electric</td>
<td>1,000 lbs.</td>
</tr>
<tr>
<td></td>
<td>G2-E5</td>
<td>electric</td>
<td>1,000 lbs.</td>
</tr>
<tr>
<td></td>
<td>SunClassic</td>
<td>electric</td>
<td>1,000 lbs.</td>
</tr>
</tbody>
</table>

Yamaha is introducing its first 4-cycle gasoline engine model, the G2-A5, which will be available in April. "We're trying something different and we want to monitor its performance very closely," Yamaha's Jones explains.

Club Car's introduction of a 4-cycle engine car in 1984 met with an "excellent" response, a company spokesman reports.

Melex redesigned its electric cars this past year, coming out with slightly narrower (for easier storage) Turtle 152 and 252 models. In addition to the styling changes, the Melex cars feature a more efficient electrical system and self-adjusting rear wheel brakes. The Raleigh, NC, company is expected to introduce a new car at the PGA show in January.

"We're definitely finding it a pretty good year," C.W. Sharek, executive vice president of Melex USA tells WT&T. "Sales are up somewhat and we're pleased with the second half. I have no reason to believe that it's not going to hold."

New golf course construction definitely figures into the marketing plans of manufacturers such as Ross Products, producers of the Legend RV3 and RV4 cars. The Boca Raton, FL, company is located in enviably attractive Palm Beach County where 45 new courses are being added to more than 100 others. Ross had a big year in 1984 and expects sales to be strong at least through 1985.

### Lease option

In addition to outright sales, manufacturers, dealers, finance companies, and leasing firms offer cars by lease, often with some type of maintenance agreement written into the contract. The popularity of leasing varies from region to region, and the exact terms of maintenance provisions can be different from course to course.

John Moore at Industrial Leasing, Portland, OR, explains that this segment of the market is subject to ups and downs as well.

"As a third party lessor, we have found our business in turf and golf down the past two years for a number of reasons," he points out. "The first is aggressive leasing programs at very competitive rates from the manufacturers and the dealerships. They see a profit from the sale of equipment and can therefore offer a more competitive rate for leasing. A third party lessor makes his money strictly on the lease."

Moore adds that dealerships are adept at arranging attractive rates from local banks or from manufacturer programs, and that leasing or buying decisions are often made by golf professionals. "We have had problems with their credibility."

George Wooley, vice manager of Great Lake Golf Cars, Cleveland, tells the advantage a dealer has in maintenance and service over a third party lessor. "We call on each course once a week to take care of small maintenance items. Then, once per year, we take the cars into our shop for renovation," he says. "The course doesn't have to worry about maintenance and we have as good idea of how the cars are being treated. This also takes the burden of maintaining golf cars off the superintendent's mechanics."

No matter who provides the cars in a leasing agreement, the lessor can reap big savings by making sure the cars are handled properly.

"Some courses really take care of them and some turn them into junk before we get them back," Melex's Sharek notes. "If they have pride in their cars and in what they're doing, they'll be better off and so will we."

### Utility market heats up

The introduction of a spate of new products in the utility vehicle market
Whether on 3 or 4 wheels, the E-Z-GO gas golf cars win the only test that matters—simply stated, more golf courses prefer E-Z-GO gas cars than any other. That's why E-Z-GO has become the leader in the industry.

The E-Z-GO gas golf car. A product of our commitment to excellence. A product you can count on.

The World's Finest Utility Vehicles For Sports and Industry. E-Z-GO TExTRON

P.O. Box 388, Marvin-Griffin Road, Augusta, Georgia 30913-2699, (404) 798-4311

Circle No. 239 on Reader Inquiry Card
in recent months could cause buyers to rethink their equipment purchases in 1985, because not only are traditional manufacturers beefing up their product lines (Cushman, the market leader for over a decade, is putting more muscle in its vehicles by going from an 18 to a 22 hp engine) but foreign manufacturers are entering the marketplace with some vigor.

"They've had a captive market for years," Lee Rinehard of Terrain Vehicles, Inc, East Coast distributor of Daihatsu maintenance vehicles, says of the traditional utility vehicle producers. "But, we've come in with a strong product at a competitive price and we'll be right up there too. We're knocking at their back door and they know it."

In addition, Honda, Yamaha, Suzuki, and Kawasaki are encroaching on the market from a different direction, initially with sporty and relatively inexpensive three-wheel ATCs, most recently with more work-oriented four-wheel vehicles. Cost and the growing availability of optional work attachments are making these vehicles attractive for specialized maintenance tasks and for running errands.

It's this diversity which will cause buyers and users of turf vehicles to think long and hard in an attempt to match purchases with jobs in 1985.

Does this mean the "workhorse" type of turf vehicle is losing its popularity? Probably not. It is a signal, however, that competition for sales in specific equipment—applications performed in the past by the "workhorse"—is going to be red hot.

Versatility, even in this day and age, is certainly no dirty word, Dan Hedglin, sales manager for turf and industrial vehicles at Cushman/OMC, stresses. The demand for equipment that fulfills many work functions is still strong. Cushman, of course, built its reputation on its workhorse vehicles.

"We expect a strong year," he says. "We've had an excellent year this year. There are probably a couple of reasons for this. The economy has come back significantly although we didn't see it affect the turf industries as much as other industries. And we enjoyed sales increases because of product improvements." Hedglin says Cushman, in addition to boosting the horsepower of its vehicles, is committed to making its vehicles

---

### Batteries and Accessories

- **Gould** (batteries)
  - Ten Gould Center
  - Rolling Meadows, IL 60008
  - (312) 840-4000

- **Industrial Leasing Corp.** (leases)
  - 2300 SW 6th Ave.
  - Portland, OR 97201
  - (503) 228-2111

- **Lester Electrical** (chargers)
  - 625 West A St.
  - Lincoln, NE 68522
  - (402) 477-8988

- **Nivel, Inc.**
  - 1500 NE 131st St.
  - N. Miami, FL 33161
  - (305) 893-3600

- **SolarWest Electric** (solar charger)
  - 232 Anacapa St.
  - Santa Barbara, CA 93101
  - (805) 963-8667

- **Tampa G Mfg. Co.** (covers)
  - 1115 Twiggs St.
  - Tampa, FL 33602
  - (813) 229-1559

- **Trojan Battery Co.**
  - 12380 Clark St.
  - Santa Fe Springs, CA 90670
  - (213) 946-8381

---

**TURFCO**

**Sod Master**

**New Improved Self-propelled Top Dresser**

It still uses Turfco's original method of conveyor and brush but the new Mete-R-Matic will make your top dressing job easier, faster and better.

---

**METE-R-MATIC II**

For the big jobs, check out Turfco's Mete-R-Matic II that can top dress 18 golf greens in six hours!
WHEN YOU’VE GOT A TOUGH CUSTOMER TO PLEASE, THE BEST COURSE IS IBDU.

"If like me, you insist on the best possible playing conditions on your course, you need to know about PAR EX® with IBDU®.

I feel strongly about the quality of the courses I play and the quality of the courses I manage. That’s why my design and maintenance organization counts on IBDU.®

IBDU slowly releases nitrogen—later in the fall, earlier in the spring and more consistently through the summer than any other fertilizer.

That means a beautiful, long-lasting turf for greens, trees and fairways. Without early flushes or extra clippings. It’s performance only IBDU offers.

So why not see your distributor for the PAR EX formulation that will save you from too many applications. Too many mowings. And too many complaints, from picky players like Jack Nicklaus.

PAR EX® WITH IBDU.®

IBDU and PAR EX are more quality products of Estech, Inc., Professional Products Division, P.O. Box 208, Bartow, FL 33830. PAR EX and IBDU are registered trademarks of Estech, Inc.
American Continental, Inc.
Box 280
Willmar, MN (612) 235-1752

Model Engine Payload Notes
EVC-2 17 hp 980 lbs. 3-wheel (4-wheel optional)
EEVC-2 electric 1,120 lbs. 4-wheel vacuum cart

American Honda Motor Co., Inc.
100 W. Alondra Blvd.
Gardena, CA 90247 (213) 327-8280

Model Engine Payload Notes
TRX200 4-cycle 456 lbs. 4-wheel

Columbia Car Corp.
P.O. Box 1
Deerfield, WI 53531 (608) 764-5474

Utility Car 250cc gas 500 lbs. 4-wheel, disc brakes

Commuter Industries, Inc.
P.O. Box 309
Cascade, IA 52033 (319) 852-3207

Model Engine Payload Notes
340 Granger gas 600 lbs. 3-wheel
Sasquatch 340 600 lbs. 3-wheel

Cushman/OMC
P.O. Box 82409
Lincoln, NE 68501 (402) 475-9581

Model Engine Payload Notes
Model 530 gas 1,700 lbs. 3-wheel
Model 531 gas 1,700 lbs. 3-wheel
Model 532 gas 1,900 lbs. 4-wheel

EquipTech Products, Inc.
615 Shepherd Drive
Cincinnati, OH 45215 (513) 733-4770

Model Engine Payload Notes
Chikazu GX12B .7-hp gas 1,100 lbs. 4-wheel

E-Z-Go/Textron
P.O. Box 388
Augusta, GA 30913 (404) 798-4311

Model Engine Payload Notes
GX-800 2-cycle 800 lbs. 4-wheel
GT-7 4-cycle electric 1,500 lbs. 3-wheel
X300 2-cycle electric 500 lbs. 3-wheel
GX300 4-cycle electric 500 lbs. 3-wheel
PC4 4-wheel 800 lbs. 4-wheel

Hahn, Inc.
1625 N. Garvin
Evansville, IN 47711 (812) 428-2027

Spray-Pro 44 .16-hp gas 1,500 lbs. 4-wheel

Mark Heald, Inc.
P.O. Box 1148
Benton Harbor, MI 49022 (616) 849-3400

Model Engine Payload Notes
Mark Hauler gas not given 3 or 4-wheels
Hauler Kits 4-cycle gas 650 lbs. 3 or 4-wheels

Jacobsen/Textron
1721 Packard Ave.
Racine, WI 53403 (414) 637-6711

Model Engine Payload Notes
T1000 gas 1,000 lbs. 4-wheel
T2000 gas 2,000 lbs. 4-wheel

Kawasaki Motors Corp.
P.O. Box 11447
Santa Ana, CA 92711 (714) 935-7000

Model Engine Payload Notes
KLT250 4-cycle gas 361 lbs. 3-wheel

The all-terrain Yamaha 200 four-wheel reverse shaft all-purpose vehicle.

adapted to seat two and four passengers with a cargo area, or seat six passengers comfortably. Further evidence that the workhorse-type vehicle should remain popular is Smithco's new Runaway turf maintenance truck which got its first production run this past summer. Smithco's Donald Smith feels the Runaway, which features a hydraulic drive train, is also an example that reducing maintenance costs, even at the expense of a slightly higher initial cost, will become increasingly important.

"People don't seem to mind spending the extra money for fewer maintenance costs, for less down time," he explains. "The whole industry will be going more into hydraulics we feel."

Even though Smith doesn't feel the introduction of new foreign products has made a major impact on the market yet, particularly in the East, he cautions traditional manufacturers from taking it too lightly. "If we don't see the direction the industry is going and take steps to stay with it, four or five years down the road we're going to get hurt," he notes.

Notable among the newcomers to the market are such companies as SNS Motor Import, Oxnard, CA, which became the distributor of the Sanfu line of equipment last January, Terrain Vehicles, Inc., Addison, IL, the East Coast Distributor for Daihatsu, and EquipTech Products Inc., Cincinnati, OH, sole U.S. distributor for the Chikazu line.

The Sanfu line is anchored by the even more maintenance-free than in the past. Jacobsen strengthens its offerings with a pair of new utility trucks, the T1000 with a 1,000-lb capacity and the T2000 with a 2,000-lb capacity and a variety of optional attachments that can convert it to a mini dumper, aerator, seeder, spreader, top dresser and sprayer.

Taylor-Dunn offers its new 2,000-lb. capacity B-2-10 model with an exclusive speed control that increases the running time and distance of the vehicle up to 30 percent. It can be
THE PRODUCTION MACHINE

“HIGH CAPACITY, ECONOMICAL, HIGH-FLOATATION”

TURF BLAZER 727 - 104

That’s how this machine has been designed! The mammoth 104” appetite affords you 31% higher capacity than a standard 72” unit. With a 60” mower out front and two hydraulically operated wings, we have eliminated the application of long, troublesome belts and assured you of picture perfect floatation over berms and undulations.

Add to this a field tested, 3-cylinder water-cooled, 27 HP diesel engine in conjunction with hydrostatic transmission and you have a machine which will maximize your return on cost of acre cut!

Contact your local HOWARD PRICE distributor for a demonstration on your turf.

Manufactured by

18155 Edison Avenue
Chesterfield, Mo. 63017
Circle No. 275 on Reader Inquiry Card
TPV600 (turf personnel vehicle) which features a 27-hp, water-cooled engine, rack and pinion steering, and a 12-month, 12,000-mile limited warranty. Even though sales of Sanfu (the vehicles are manufactured in Taiwan) have been primarily in the West so far, SNS Motor Imports is putting together a national dealer network.

“Our first year in 1984 was a building year,” Tony Nunez of SNS Motor Imports says. “We knew a lot of the vehicles we would sell would be initial inventory and we expect a lot of reorders. We’re looking at having a good year in 1985. We’ve been able to attract quality dealers and that was our goal, good solid dealers that have been in business a long time.”

Likewise looking to the coming year with unabashed eagerness is Rinehard of Terrain Vehicles, a new company that oversees 19 Daihatsu dealer points in 15 states. Although Daihatsu vehicles have been on the market for a number of years, Rinehard feels the quality of the product and the parts support system his company provides will make Daihatsu a more noticeable force in the utility vehicle market.

“We have a high 90 percent parts/fill ratio,” Rinehard stresses. “The complaint that foreign products have a parts problem is old hat, a good sales trick. We can fill any order for any part.” Daihatsu products are supported by Subaru Mid-America, parent company for Terrain, which maintains a complete supply of parts, Rinehard explains.

The diversity of the market is reflected at Pinehurst, NC, where equipment manager Richard Yow reports using Daihatsu vehicles in a truckster capacity while retaining Cushmans for use on the greens.

Joining the utility vehicle sales fray this September was EquipTech Products with its Chikazu line of 15 different vehicles ranging in size from a motorized wheelbarrow to an eight-wheeled-drive vehicle with a two-ton payload. Included in this array are the GX12B and GX15B mini dump trucks.

“We can cover a number of markets with our products,” EquipTech’s Joe Engelbert says. “Some of them overlap and some of them don’t.” Engelbert is looking to a strong debut for Chikazu. “It’s one of those things you feel like you should have been in a year ago,” he notes.

With the ringing of the bell signifying the start of the 1985 selling season there is no lack of challengers to the traditional utility vehicle leaders; and if they can’t win the bout, it might be that they’ll be satisfied to win a round or two. At least for now.
Greens or fairways... the Spray-Pro 44 with its big high flotation tires to protect your turf, converts in minutes to a Sprayer, Spreader, Aerifier or Utility Bed. Designed for easy on, easy off switching and year 'round service.

This “crew” should be working for you

the sprayer...
160 gal. poly tank, 3-section boom for 18-1/2 ft. coverage. Spray with 1, 2, or all 3 booms. Fingertip control of all spray system functions.

the aerifier...
Hydraulically controlled from operator's position. Cultivates a full 42 inch width. Cleanly penetrates to 3 inches, depending on soil conditions. Optional Slicing Blades to open the soil with a minimum of turf disturbance.

the spreader...
Precise rate settings for a uniform pattern. Top dress sand in 12 to 20 ft. swath, apply seed, fertilizer and lime 20 to 40 ft. Up to 500 lbs. per minute.

the utility truck bed...
Reinforced steel, 1500 lbs. capacity. Converts to dump bed with addition of Hydraulic Package.

Hahn TURF PRODUCTS DIVISION
1625 N. Garvin Street, Evansville, Indiana 47711-4596

For the name of your nearest dealer, or free brochure: CALL TOLL FREE 800/457-HAHN

Are we confident of our quality?... our ONE YEAR LIMITED WARRANTY says it all.

Building self-propelled sprayers since 1948.

In Indiana, Call Collect (812) 428-2025 Telex: 27-8429

Circle No. 116 on Reader Inquiry Card

NOVEMBER 1984/WEEDS TREES & TURF  67
Walking through a local garden show, most consumers have no idea what effort goes into the exhibits by various landscape contractors. They say to themselves, "I paid four bucks to get into this commercial advertisement, so it better be good!"

Little do they realize the display set-up alone can come close to 250 hours. And, the cost of a display can range from $1,000 to $35,000.

Taking into consideration the time, money and hard work put into it, one might wonder if being in a garden show is worth it. Although the reasons for being in shows vary from landscape contractor to landscape contractor, most agree the event is a worthwhile one.

"The incentive for being in a garden show is just very simply the hope of achieving some leads in a very off-time of year," Bob Kinney, vice president in charge of landscaping and nursery division, Wilmore Gardens, Denver, CO, remarked. "Any time you can encourage any type of current or potential customer contact, it's very critical."

"Because it's very cold and wet here, it gets the customers thinking about spring," Lambth Marshall, president, Associated Landscape, Inc., Hoyt Court, NC, explained. "All you need is one really good customer. That one customer can turn around and give you 25 customers in the next year."

Being in a show often represents credibility and is a sign of prestige, according to Greg Ash, co-owner and architect, Barker-Ash Landscape Design, Indianapolis, IN.

"I think it lends more credibility to you. The promoters of an established show will only let companies exhibit they know can do the job and present something that's going to look nice."

Russell Jones, president, J. Franklin Styer Nurseries, Concordville, PA, agrees. "People recognize immediately you're a good contractor. The show itself has a lot of stimulus and is pretty prestigious."

However, Rick Solo, owner of Solo Design Group, Charlotte, NC, believes the prestige of a garden show is questionable.

"I used to think the show was prestigious, but I don't anymore. What I have noticed over the years is the quality of the garden displays really..."
A new day in grass control for ornamentals.

**FUSILADE**

Postemergence grass control

This is the beginning of the FUSILADE herbicide era for ornamentals. FUSILADE is now registered for postemergence control of both annual and perennial grasses in ornamentals.

Safe grass control

FUSILADE controls grasses without damage to ornamentals. You can apply FUSILADE either over-the-top or as a directed spray. Follow label directions carefully for the correct method of application for specific ornamentals. Used as directed, FUSILADE controls nearly all grasses without danger of phytotoxicity to ornamentals, eliminating expensive hand labor to remove grassy weeds.

Complete grass control

FUSILADE means complete grass control because it controls weeds systemically, even penetrating into roots, rhizomes and stolons. And FUSILADE can be used with more ornamental species than any other postemergence grass herbicide. It’s a new day in complete grass control for ornamentals. For more information on FUSILADE, call the ICI Americas Information Service toll-free, 1-800-441-7757, extension 3192. ICI Americas Inc., Wilmington, DE 19897.

Circle No. 119 on Reader Inquiry Card
GREENSKEEPER INSECT and GRUB CONTROL - A granular product, impregnated on corn cobs, designed to kill both surface and subsurface insects on turf.

GREENSKEEPER INSECT and GRUB CONTROL’S granular formulation spreads fast, easy, and accurate with any spreader, eliminating the drudgery of sprayers.

COUNTRY CLUB INSECT CONTROL 19-4-4 - A full weight, high density product designed to do two jobs in one easy application - fertilize the turf and control insects, thus saving you time and money. This granular product is a premium balanced 19-4-4 with 3.0 units of W.I.N. to reduce chances of turf burn and for extended feeding.

Both GREENSKEEPER INSECT and GRUB CONTROL and COUNTRY CLUB INSECT CONTROL 19-4-4 will control sod webworms, chinch bugs, ants, ticks, mole crickets, cutworms, brown dog ticks, earwigs, hyperodas weevils, japanese beetle grubs, and european chafer.

DURSBAN® - is a registered trademark of Dow Chemical U.S.A.

THIS SEASON DEPEND ON COUNTRY CLUB AND GREENSKEEPER FERTILIZERS!!

Call Today for more complete information.
Distributor inquiries invited.

LEBANON CHEMICAL CORPORATION
P.O. Box 180, Lebanon, PA 17042
P.O. Box 647, Danville, IL 61832

LEBANON CHEMICAL is offering two high quality, economical and tested insect control formulations containing DURSBAN®.

Barnes Nursery & Garden Center, Inc., Huron, OH, won Best of Show at the 1984 Home and Flower Show in Cleveland.

seems to have gone downhill. It seems to me a lot of the stronger companies are not participating like they used to. I think it may have something to do with whether you get work out of the show. Generally, if you get work out of the show, it is residential and some companies are beginning to move away from the residential market,” Solo explained.

Some landscape contractors see the show as a place to invite customers they will be working with in the upcoming season.

“A lot of work that comes out of the shows is getting ready for spring. We arrange to meet clients at the show and take them around as our guests, so, the show is also a sales tool,” Jones said.

For others, the show is a way to get together with former customers and talk about updating gardens.

“It is also an educational tool to show people our style,” Loonsten said. Style goes beyond the simple how-to of do-it-yourselfers.

Professional exposure is also received at a garden show, according to Mike Spena, president, Spena Landscaping, Highland Heights, OH.

“The incentive of the show is exposure; the people see the garden and it reinforces their idea of us. But, it also gives us professional exposure. It promotes the image within the industry. You get to know a lot of people and, if you’re not there, I think you miss some of the association.”
Only one 30hp trencher stands head and shoulders above all the others.

- It's fully hydrostatic.
- Has the shortest learning time.
- Forgives operator abuse.
- Has an exclusive 1-year warranty on the power unit.
- Costs the least for service and parts.

- Has the lowest total life cycle cost.
- Will match any 30hp trencher in productivity.

The Midmark 321.

FREE DEMONSTRATION

Do yourself a favor. Before you spend your hard earned money, see a free demonstration of the Midmark 321 on your lot or job site. There's no obligation. And we'll give you this handsome, solid brass belt buckle. It's as exclusive as the 321.

For fast action, clip and mail the coupon. Or call toll free 1-800-MIDMARK. In Ohio 1-800-472-1621. Telex 288007.

Because we care.

The Midmark 321 sounds like my kind of trencher.

Mail to: Midmark Corporation
Dept.WT
Versailles, Ohio 45380

Circle No. 130 on Reader Inquiry Card
The SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS - a must for anyone involved in the field of pest control!

Solo also finds professional exposure a reason to attend the show. "One of the things I have found most beneficial about the show in terms of contacts and exposure is not so much the general public as with other people in the trade. It's almost like a reunion of sorts where you reestablish a lot of business contacts with suppliers, architects and designers, or contractors. I find this to be particularly worthwhile," Solo remarked.

Does the garden show really provide many leads? Rich Baron, president of Suburban Landscaping, Inc., Berea, OH, thinks so.

"I was in a position years ago that I was bidding against people at the show and wasn't getting anything. I wondered why the builders knew so much about the other contractors. I looked into it more and found out they knew more about the contractors because they stopped into the Home and Garden show and talked to them," Baron explained.

"These guys in business don't want to have you come to their office, and try to sell your product. But, if they can talk to you on a Friday night for 20 minutes in a relaxed atmosphere and get an idea what you're about and what you can offer, they tend to remember that more so than some body pounding them with all kinds of mail," Baron said.

Loonsten has also seen an increase in the number of leads from the show, especially in the last few years. "We find that we are getting more and more direct leads from the show. Originally, we didn't. People kind of put it in the back of their minds. It was kind of a goal. They'd always say, 'When I can afford to do this, I'm going to have Frits Loonsten do it.' Now, it's more direct from the show," Loonsten said.

However, Solo says it depends on the year where he is concerned. "It really varies from year to year. There are some years we get a tremendous volume and there are some we get
That’s right! All of us have seen it before — that unacceptable area in our fairways or lawn. Just as important, an area where chemicals have been over-applied and a burned condition exists, and that can mean extra work for you. It’s difficult to spray accurately and consistently on golf courses because every golf course is made up of countless slopes, contours, and bends. But with Blazon™ Spray Pattern Indicator you can take the guesswork out of spraying, forever. All you do is add Blazon™ right to your spray tank; it’s totally compatible with the chemicals you use. It reduces lost time by quickly identifying a clogged nozzle, untreated or overlapped areas. In addition, Blazon™ is temporary and non-staining. Blazon™ Spray Pattern Indicator is the new solution to a never-ending problem. So contact the distributor nearest you for the product that has taken an art and turned it into a science—“The Professional Solution for Professionals”...

Blazon™ Spray Pattern Indicator

Milliken Chemical, Division of Milliken & Company, P.O. Box 817, Inman, South Carolina 29349, (800) 845-8502

Circle No. 131 on Reader Inquiry Card
none at all. It's really difficult to say what the controlling factor is. The thing about the local garden show here is the percentage of people who are realistically potential clients is very small because you're talking about a cross section of the general public whereas our clientele is not such a broad cross section," Solo explained.

Getting leads from the show isn't the reason to display, according to Spena. "If you look at it as leads, it's like saying 'how many dollars can I make?' That's not the reason to be in the show. I worry if the garden looks good."

Is a local garden show really worth all of the time and hard work?

Loonsten, whose business may spend up to $35,000 at the show each year, thinks so. "We lost very little from our show. We couldn't afford to lose a lot."

But, Jim Grabo, president of Highlands Hardware & Nursery, Denver, CO, disagrees.

Solo takes it year by year and has started to diversify his gardens.

"One of the attitudes we've taken with our local garden show is that it's an opportunity to do something unique. We don't want to do traditional things anymore. It might not be widely accepted, but if nothing else, it would show that we have diversity. That's probably a little riskier approach, but we figured the garden show was a safe place to take the gamble."

---

When it comes to reel quality, a rotary can't cut it!

Compare the overall beauty of turfgrass cut by a National reel mower with the brownish appearance left by a rotary. The reason is clear...

National's reels slice grass cleanly, leaving a uniform, crisp cut and a beautiful appearance...and less energy is required to do it!

The rotary's blade doesn't cut at all. It chops and tears the blade ends, leaving tip burn and an unappealing look along with unsightly clumps of grass.

But that's not all. We'll be happy to give you many other reasons to choose a National reel mower, like lower initial cost, less maintenance, better fuel economy, easier service and longer life!
Two watering schedules in one easy-to-program controller

That's a switch

Now, at the flip of a switch, you can have two separate watering programs. In the simple-to-operate new Mark Series of micro-computer irrigation controllers from Weather-matic.

Mark controllers have a special function selector switch that eliminates many programming steps required with a keyboard pad. An LED display shows the current time or program value. And LED lights indicate each watering day selected.

The new controllers also offer 0-99 minute timing at one-minute increments, and four daily start times on each program.

Special features include a battery back-up system that retains program and clock time in the event of power failure. Plus a back-up program that provides 10 minutes of daily watering on each station when the controller has been without power for an extended period. In addition, the controller will detect any partially shorted valve and automatically skip that station.

This advanced new controller is available for 6 or 8 watering stations, in rainproof aluminum housing or economical plastic for indoor use. Or a 16-station version in an industrial grade housing with an optional pedestal. Teamed up with Weathermatic valves, sprinklers and Rain-Stat®, the Mark Series works and works and works.

It's one of the newest reasons more and more irrigation professionals say you can't beat the system — when the system you choose is Weather-matic.

Just write or call for all the details.

What a switch!

Sprinkler Division/Telsco Industries
P.O. Box 18205 • Dallas, Texas 75218
214/278-6131

Weathermatic
LAWN AND TURF
IRRIGATION

Circle No. 160 on Reader Inquiry Card
Ken Kubik and Bert Jones, owners of Grass Roots, a golf supply business in New Jersey, believe the best way to keep customers is to keep them happy with quick and reliable service. Their formula's working; sales have increased seven times since the company was founded six years ago.

Back to Basics

by Maureen Hrehocik, managing editor

Ken Kubik's corporate philosophy is to provide quick and efficient service to his customers.

Ken Kubik's original career plan was to become a minister. A stint on a golf course at age 12 changed that.

Today, Kubik's partnership in a metropolitan New York golf course supply wholesaling business is flourishing and the 39-year-old credits his golf course "hands on experience" as invaluable in making that happen.

From caddy, Kubik progressed to other jobs around the course and finally became assistant superintendent at Crestmont Country Club in West Orange, NJ, assisting course superintendent Peter Pedrazzi. That job lasted 14 years.

"I had thought about becoming a minister, and I had thought about majoring in labor management, philosophy, anthropology or sociology, but after working on the golf course for so many years, my true love was turf. I loved the job because it wasn't sedentary."

But when Kubik was in his 30s, he felt it was time for a change.

"I had been at the golf course since 1973 and had worked as a sales manager at Andrew Wilson in New Jersey and felt myself reaching a plateau."

Kubik did a lot of soul searching and felt his ideas and energies could best be developed through starting his own business.

"The name for the business, Grass Roots, kind of developed naturally."

For me, this decision was getting back to basics, and I wanted my business to reflect that," explained Kubik.

So, in December of 1978, Grass Roots was founded.

Controlled growth

Kubik's current business gives him everything but time to be sedentary.

He and his partner, Bert Jones, make about 42 sales calls a week. Grass Roots services about 150 golf courses in a 75 mile radius of the firm's home base of Mt. Freedom, NJ.

"Everything they say about starting a business is true," says Kubik.

"Even though I've been around golf courses my whole life, you still have to prove yourself and get accepted in a new position. It's as much selling yourself as your products."

Grass Roots represents Royal Coach-Buckner, Swan Hose, Lebanon Country Club Fertilizer, Aquatrols Aqua Grow, Lofos Seed, Mobay Standard Golf Company's Pro line, Par Aide golf products, Milliken's Blazon and PeneTurf, among other lines.

Kubik is very conscious about controlled growth for the company. He does not want to expand his lines only for the sake of expansion. The same holds true for the territory he covers.

"It's very important to us to fill our current commitments and to provide the type of service we've become known for before branching out anymore."

Sales since the company was founded have gone up seven times. Kubik reports 30 percent more growth this year than last year. He and Jones are considering some plant expansion and warehouse improvements.

"This market has been competitive and will continue to be competitive," Kubik predicts. "Experience is extremely important. I consider myself an ever-changing constant. We want to give better service every time we go out. It doesn't matter if the order is for a caseload of chemicals or a tee marker, superintendents in this area
Featuring 270 Exhibits, Lectures and Workshops Planned to Make You More Aware, Better Informed and more Proficient

**Golf Course**
- Annual Bluegrass Management
- Growth Regulators on Fairways
- Sand Topdressing
- Water Management
- Soil Conditioners
- Thinking Superintendent
- Cambridge System
- Winter Injury
- Thatch
- Disease Update
- Drainage

**Grounds and Landscape**
- Athletic Field Construction
- Athletic Field Maintenance
- Landscape Screening
- Renovation
- Seeding and Sodding
- Aeration
- Rooting Hormones
- Herbicides
- Mole Control
- Plants for Shade
- Long-Range Planning
- Drought

**Lawn Care**
- Ethics
- Renovation
- Diseases, Insects, Weeds
- Grub Control
- Ohio Pesticide Pro Task Force
- New Tall Fescues
- Soil Conditioners
- Thatch
- Mental Stress
- Fertilizer Update
- Ground Water Contamination
- Aeration
- Pesticide Public Relations
- Drought and Dry Spots

**Workshops**
- Diseases and Insects on Ornamentals
- Ornamental Nutrition
- Ornamental Problems
- Tree Stress
- Turfgrass Problems
- Growth and Development of Turfgrass
- Estimating Grounds Work
- Pesticide Training Session

**General Sessions**
- Image Game
- Turfgrass Around the World
- Pesticide Controversy
- Update on Fungicides, Herbicides and Insecticides

Ohio Turfgrass Foundation
Conference and Show
Ohio Center
Columbus, Ohio
Dec. 3-4-5-6, 1984

Contact Dr. John Street
c/o Ohio Turfgrass Foundation
2021 Coffey Road
Columbus, Ohio 43210
614-422-2047
are used to getting things when they need them."

Kubik estimates he is competing with anywhere from 12 to 18 firms in a 75-mile radius.

Quickness is one of the attributes Grass Roots arms itself with to combat the competition.

"This is not only a competitive area sales wise, but also among golf courses," Kubik says. "When a superintendent needs something he needs it now. We react to the situation."

Kubik and Jones make up the company's sales team. Their wives take care of the office and bookkeeping work. The company also employs three deliverymen.

Kubik says he and Jones enjoy a special kind of business relationship in that it is a true partnership—decisions are made together and there are no petty rivalries.

"I can't express the respect we have for each other," says Kubik of his partner.

Before joining Kubik, Jones was a vice president at Andrew Wilson and a sales manager at John Manville.

On the road
Grass Roots is a firm believer in trade shows. Kubik says his company goes to shows for visibility and to pick up new lines.

"It's a good way to get to know the manufacturers and for the manufacturers to get to know you. If you don't get off on the right foot with manufacturers, it can break you."

Another area where Kubik feels the industry can be broken is in federal regulations.

"The federal government is over-regulating the professional," he says. "The professional shouldn't be penalized because of the incompetence of others. This industry doesn't need alarmists."

Kubik feels the best interests of the industry can be served through local and state legislators and industry associations.

We Made It Simple!

**QUALITY** — Built with Swiss clocklike precision.

**LIGHTWEIGHT** — With the comfort of the user in mind.

**ACCESSIBLE** — A durable self lubricating and external pump assembly.

**SIMPLICITY** — Insures cleanliness and longer wear. No tools necessary to disassemble and repair.

**PRICING** — Here's one instance when you pay less for the best.

**BIRCHMEIER**

has the
Back Pack
Sprayer
for you —

**AVAILABLE IN**

- 5-gal (20 L)
- 3½-gal (13 L)
- 2-gal (10 L)

**FOR MORE INFORMATION**

TREBOR CORPORATION
4047 A JONESBORO ROAD — FOREST PARK, GA 30297 — 404-366-9957

Circle No. 148 on Reader Inquiry Card
Pennncross & Penneagle are found the World 'round

The 'Penn Pals' have proven their performance on tees, greens and fairways in all parts of the globe.

**Penncross**
- Heat tolerant
- Disease resistant
- Fast growing
- Wear tolerant
- Aggressively competes with Poa Annua
- The worldwide standard for more than 25 years

**Penneagle**
- Upright dense growth
- Dark green colour
- Lower cutting (3 MM for tournament play)
- Fast germinating
- Dollar spot resistant

**‘Penn Pals’**

For more information or the name of your distributor call or write

Tee-2-Green Corp.
In the U.S.A., toll free 1-800-547-0255
In Oregon, 981-9574

Warren Bidwell, turf consultant, is available to talk to your superintendents group about golf courses around the world. Call Tee-2-Green Corp. for details.

Penncross and Penneagle, the Penn Pals from Tee-2-Green Corp.
PO Box 250, Hubbard, Oregon 97032, USA • TWX 510-590-0957

Circle No. 145 on Reader Inquiry Card
Visual symptoms misleading

Problem: An unusual number of customers this spring have complained that the leaves on their trees looked terrible. Some reported leaves falling off by the end of June. One customer says the chemicals I use on weeds are doing this. Do you know what is causing the trees to look bad? Could it really be the weed killer?

(Pennsylvania)

Solution: It is very important to respond to customer complaints like these. In nearly all cases where the right chemical was used in the right way, the actual problem is nonchemical. The customer should be provided with a clear explanation of the problem as soon as possible.

There are several nonchemical causes of herbicide-like symptoms on woody plants that may be causing your problems. The ones which I see quite frequently and which appear to be more extensive this year are: 1) anthracnose, 2) aphids, and 3) cold or frost injury. Anthracnose is a leaf disease caused by several different kinds of fungi. Leaves having anthracnose are often curled or cupped (distorted) perhaps having small areas of brown necrotic tissue present.

Anthracnose is identified by the presence of fungal fruiting bodies and spores. Identification may require incubation of affected leaves under conditions conducive to fungal growth before these features are seen.

Aphids are small, soft-bodied insects which suck plant juices. Some, but not all, aphids have been found to produce substances chemically similar to plant growth regulators. The end result of aphid feeding is distorted foliage -- cupped, curled, crinkled, and/or undersized leaves. These symptoms are similar to herbicide injury. However, you will be able to find honeydew (a sticky, sugary, aphid excrement), skins, eggs, or the insects themselves when aphids are involved. It may require a hand lens or microscope to clearly see aphids, or other insect signs.

Low temperatures also produce foliar symptoms which mimic herbicide damage. Low but not killing temperatures result in crinkled or wrinkled leaves. Frost and freezing temperatures kill tissue turning it black or dark brown. The entire leaf may not be destroyed and the blackened tissue may be found only at the growing tips and margins of the leaf.

The foliage in question can, and in cases of possible litigation, should be analyzed for the presence of herbicide. There are laboratories which for around $50 or more can detect and identify the more commonly used herbicides.

“Wait and see” is best approach

Problem: We have around 500 boxwood plants and a number of Sunburst locust, flowering crab, redbuds, and azaleas in our nursery. These were damaged by a hail storm and cold temperating the winter of 1983-84, which was unusually cold. The boxwoods have the first three inches of tips burned by sun or frost. Should these be trimmed or will they come back?

The azaleas were injured by the hail storm with bud damage. Will they leaf out again this year? The locust and crab trees show damage from the hail. What can we expect?

(Iowa)

Solution: My recommendation for the damage you describe; i.e., hail, frost, winter injury, would be to fertilize and water first, then prune out the dead tissue later. It is sometimes difficult to determine in the field what is truly dead and will not come back from what may leaf out again (refoliate) after proper treatment.

To some people, fertilizer means an inorganic product. Such products probably should be avoided because they are chemical salts and could cause fertilizer “burn”. This, of course, would not help the plants recover.

Hail and frost injury can make the plants unsightly and probably difficult to sell. However, unless more than one-half to two-thirds of the normal crown has been killed, with proper treatment most of the plants should recover. It may take one or two growing seasons before the appearance of the plant has improved to the extent where they are again attractive and therefore ready for sale.

Best trimming time varies

Problem: What time is the best for trimming trees February, March or in the winter? (Michigan)

Solution: With the exception of trees which “bleed” readily, trimming and especially the removal of small, dead or dying branches can be done nearly any time.

Maples, birches, and elms are bleeders and should not be trimmed during the period of bud break and leaf development. Bleeding seems to be less of a problem when the tree is trimmed in the fall and early winter rather than in late winter or early spring. In fact, it is best for most kinds of trees to prune them after the spring flush because when the cambium is active, the bark is loose and can be easily torn.

Broad-leaved (deciduous) species in general can be trimmed without harmful results after leaf fall but before bud break. Needle-bearing trees (conifers) are set back the least when pruned just prior to bud break. From a disease standpoint, specifically Dutch elm disease and oak wilt, elms and oaks should be trimmed in late fall or early winter.

Trees infected with or susceptible to fire blight should never be pruned when the plant is wet. Doing so spreads the bacteria which cause fire blight. Fresh wounds caused by trimmings can attract insects, mostly beetles, some of which carry disease from tree to tree. Thus pruning when the adult insects are active increases the chances of spreading certain diseases and should be avoided.
### MY PRIMARY BUSINESS AT THIS LOCATION IS:

(PLEASE CHECK ONE ONLY IN EITHER A, B OR C)

#### A. LANDSCAPING/GROUND CARE AT ONE OF THE FOLLOWING TYPES OF FACILITIES:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0005</td>
<td>Golf courses</td>
</tr>
<tr>
<td>0010</td>
<td>Sport complexes</td>
</tr>
<tr>
<td>0015</td>
<td>Parks</td>
</tr>
<tr>
<td>0020</td>
<td>Rights-of-way maintenance for highways, railroads &amp; utilities</td>
</tr>
<tr>
<td>0025</td>
<td>Schools, colleges &amp; universities</td>
</tr>
<tr>
<td>0030</td>
<td>Industrial &amp; office parks/plants</td>
</tr>
<tr>
<td>0045</td>
<td>Condominiums/apartments/housing developments/ hotels/resorts</td>
</tr>
<tr>
<td>0050</td>
<td>Cemeteries/memorial gardens</td>
</tr>
<tr>
<td>0060</td>
<td>Military installations &amp; prisons</td>
</tr>
<tr>
<td>0065</td>
<td>Airports</td>
</tr>
<tr>
<td>0070</td>
<td>Multiple government/municipal facilities</td>
</tr>
</tbody>
</table>

**Other type of facility (please specify):**

#### B. CONTRACTORS/SERVICE COMPANIES/CONSULTANTS:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0105</td>
<td>Landscape contractors (installation &amp; maintenance)</td>
</tr>
<tr>
<td>0110</td>
<td>Lawn care service companies</td>
</tr>
<tr>
<td>0125</td>
<td>Landscape architects</td>
</tr>
<tr>
<td>0135</td>
<td>Extension agents/consultants for horticulture</td>
</tr>
</tbody>
</table>

**Other contractor or service (please specify):**

#### C. SUPPLIERS:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0205</td>
<td>Sod growers</td>
</tr>
<tr>
<td>0210</td>
<td>Dealers, Distributors</td>
</tr>
<tr>
<td>0215</td>
<td>Other supplier (please specify)</td>
</tr>
</tbody>
</table>

**Approximately how many acres of vegetation do you maintain or manage?**

**What is your title? (please specify):**

**I would like to receive (continue receiving) WEEDS TREES & TURF each month: YES ☐ NO ☐**

**Your Signature:**

**Date:**
DOUBLE DUTY DUO

For Disease Control

For Insect Control

on turf, trees and shrubs

**Duosan is** Mallinckrodt's double-action broad spectrum fungicide. It goes to work instantly as a contact fungicide, then remains active as a systemic fungicide.

Duosan effectively controls 8 turf diseases — including Leaf Spot, Red Thread, Dollar Spot and Brown Patch — and it's now also approved for control of 9 tree and shrub problems including Apple Scab, Anthracnose, Rust, Powdery and Downy Mildews, and others.

With just one fungicide — DUOSAN — you can control 17 disease problems on turf, trees, and shrubs!

**Dymet is** Mallinckrodt's double-action insecticide. It delivers a quick kill upon contact, then provides long-lasting residual control.

Dymet is effective against surface insects such as Cutworms, Chinchbugs, and Sod Webworms, and can also be mixed for use on sub-surface pests. In addition, it controls a wide variety of insects on trees, shrubs, and ornamentals.

With just one insecticide — DYMET — you can control 25 insects on turf, trees, and shrubs!

For more information on Duosan, or Dymet, or both, call Mallinckrodt toll-free. Or, contact your Mallinckrodt distributor. You might eliminate a long list of problems all at one time!

Mallinckrodt

P.O. Box 5439
St. Louis, MO 63147
(800) 325-7155
Bunton spreader covers 16-ft path

The Bunton multi-purpose commercial spreader evenly distributes grass seed, fertilizer and sand over a 16-ft-wide path. The unit features a 130-pound capacity stainless steel hopper, stainless steel blower-spreaders and heavy gauge steel handles.

The 2.3 hp, 4-cycle Robin engine propels the spreader at speeds of up to 2 mph. Finger tip steering controls provide easy steering and excellent maneuverability.

Honda's lawn tractor is built for safety

At the touch of a lever the blade almost immediately stops the 38-inch twin blade without stopping the engine, one of several safety features on Honda's new HT3810 lawn tractor. As an added precaution, the blade must be disengaged before the engine will start, and a weight-sensitive switch is located in the seat, preventing operation unless the driver is seated at the controls.

The HT3810 comes with a mechanical autolock transmission that allows shifting with the touch of a lever, an electric starter, and an electronic ignition.

The new Honda tractor is equipped with a G400-type engine and a shaft-drive system and features a cast iron cylinder sleeve, ball-bearing supported crankshaft and a chrome top piston ring.

The HT3810's versatility is increased with a front PTO pulley and rear hitch plate which can be hooked up to a variety of attachments. Other features include a high-vacuum cutter housing with provides clean cutting and efficient discharge action, and adjustable cutting height at the touch of a lever.

Circle No. 181 on Reader Inquiry Card

Irri-Trol's SMC is versatile controller

In addition to its functions as part of Irri-Trol's Master and Satellite System, the SMC-12, 18, 24 Series Turf Controllers are versatile and reliable units designed for independent operation.

Circle No. 191 on Reader Inquiry Card

Advances in Turfgrass Pathology

This extensive volume contains chapters on:
- turfgrass diseases
- cool v.s. warm season pythium blight and other related pythium problems
- snow molds of turfgrasses
- fairy rings
- leaf spot of Kentucky Bluegrass in Minnesota
- initial and field fungicide screening
- turfgrass disease resistance
- PLUS MUCH MORE!

ADVANCES IN TURFGRASS PATHOLOGY is a compilation of more than 23 reports and discussions by the nation's leading turfgrass pathologists. Explore the diseases that attack turfgrass. Find out how to conquer the battle of turfgrass diseases. KEEP CURRENT WITH NEW IDEAS ON HOW TO HANDLE TURFGRASS PROBLEMS WITH ADVANCES IN TURFGRASS PATHOLOGY.

$27.95* (hardcover) COPIES LIMITED — DON'T DELAY!

Return this coupon to: Book Sales
Harcourt Brace Jovanovich Publications
One East First Street, Duluth, MN 55802

YES! Please send me ______ copy(ies) of ADVANCES IN TURFGRASS PATHOLOGY.

Name ____________________________
Address __________________________
City _______ State _______ Zip ______
Phone ____________________________

$27.95* hardcover Quantity rates available on request.

A check or money order for _______ is enclosed.

*Please add $3.00 per order plus $1.00 per additional copy for postage and handling.

Please charge to my Visa, Master Card, or American Express (circle one)
Account Number __________________________
Expiration Date __________________________

Please allow 6-8 weeks for delivery.
CALL NOW TO SEE OUR NEW LINE OF 1985 BROCHURES

Now your lawn company can afford beautiful, predesigned full color brochures... at 2 color prices.

PERFCO HAS MANY BROCHURES
With many different styles and sizes to choose from, we try to eliminate any geographical overlap of our main product line.

LARGE ORDER CUSTOM DESIGN
We can help you design and give price quotes for companies that have a need for large amounts of brochures in multiple locations.

PROFESSIONAL IMAGE
Perco full color brochures will improve your professional image without expensive color preparation charges and agency fees.

VARIETY OF OPTIONS
• Seasonal Brochures
• Liquid & Dry
• Fungicide Brochures
• Free & Shrub Brochures
• Aeration Brochures
• Weed Brochures
• Landscaping Brochures
• Grub Brochures
• Estimate Covers
• Corresponding Supplies

ONLY THE PRICES ARE UNBELIEVABLE

<table>
<thead>
<tr>
<th>Brochure</th>
<th>Quantity</th>
<th>Price (each)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8½ x 11</td>
<td>10,000</td>
<td>9.5</td>
</tr>
<tr>
<td>4 Color both sides</td>
<td>25,000</td>
<td>8.0</td>
</tr>
<tr>
<td>1 Fold</td>
<td>50,000</td>
<td>6.5</td>
</tr>
<tr>
<td>Return mailer card</td>
<td>100,000</td>
<td>5.5</td>
</tr>
</tbody>
</table>

For free sample brochure package, call or write.

1-800-543-0900
Ohio 1-513-845-3897
The SMC's programmable microcomputer features solid state logic, no moving parts and functions that are accurate to within a fraction of a second. Its features include 24 key programming, bright fluorescent display for daylight visibility, CAD-plated, rust resistant, weatherproofed steel case for outdoor installation, with lock and keys, station lights indicate which station is on. Automatic Safety Back Up Program is also provided as well as many other features. It is UL listed and is available in 12, 18, and 24-station models. It is also available with 220/240 volt, 50 cycle wiring for use abroad.

Circle No. 192 on Reader Inquiry Card

Mesto portable sprayers come in three sizes

Peco Sales, Inc. introduces three models of Mesto portable pressure sprayers for both professional and consumer use. These sprayers can be used for herbicides, fungicides, liquid fertilizers, animal repellents, and biological spraying agents.

The Model 3539 backpack sprayer features a 4 1/2-gallon capacity and an adjustable pressure regulator that assures constant spray output and droplet size. The Model 3265 has a 1.3-gallon capacity and the 3268 a 2.1-gallon capacity. All three models have high-density, polyethylene tanks and pumps as well as all-brass wands and nozzles. Each has a tank-mounted pressure gauge and safety valve to vent excess pressure.

Circle No. 193 on Reader Inquiry Card

Bunton offering winter attachments

Optional attachments for Bunton 71 in. and 61 in. turf tractors are available that provide for operator comfort during severe weather and allow use of the tractor for general cleaning and snow removal.

A fully insulated cab offers protection from the weather and a roll-over protection system provides greater operator safety in conformance with RANSOMES. For Information Contact Your Nearest RANSOMES Distributor

EAST

Brodréner Equipment, Inc. (Upstate NY)
Rochester, NY 14606, 716-247-5247

The Clipper Co. (ME, VT, Ri & Eastern MA)
West Newton, MA 02167, 617-244-7900

Conaway, Inc. (MD, Northern VA & Washington D.C)
Laurel, MD 20707, 301-953-9220

Conaway, Inc. (Western & Central PA)
Lawrence, PA 15055, 412-341-6447

EDM Distributors, Inc. (CT, VT & Western MA)
Agawam, MA 01001, 413-786-6977

Ross Lawn Equipment (Upstate NY)
Tonawanda, NY 14001, 716-691-7642

Steven Willand, Inc. (NJ, NY, Li & Eastern PA)
Fairfield, NJ 07006, 201-227-5656

SOUTH

Adrian Metal & Tractor, Inc. (Eastern NC & Eastern SC)
Conway, SC 29526, 803-365-5501

Chemical & Turf Specialty Co., Inc.
(TX & OK)
Gardland, TX 75041, 214-271-4549

RANSOMES Florida, Inc. (Southern FL)
West Palm Beach, FL 33406, 505-893-4788

South Central Turf Equipment, Inc. (MS & LA)
Jackson, MS 39209, 601-922-7437

Spain Distributing Co. (Western NC & Western SC)
Charlotte, NC 28210, 704-552-9582

Stovall & Company, Inc. (GA & AL)
Atlanta, GA 30318, 404-352-1555

Tennessee Outdoor Power, Inc. (TN)
La Vergne, TN 37086, 615-793-6052

Turf & Industrial Eqt. Co. (Northern FL)
Winter Springs, FL 32708, 305-327-2220

MIDWEST

Baker Vehicle Systems, Inc. (Northern OH)
Macedonia, OH 44056, 216-467-2550

Brenton Lawn & Turf Corp. (KY & Southern IN)
Louisville, KY 40207, 502-956-9887

Conniff's Power Equipment, Inc. (IN & Southern OH)
Richmond, IN 47374, 317-953-2344

General Turf & Grounds Equipment Co. (KS & MO)
Columbia, MO 65205, 314-445-6609

Grass Roots Turf Equipment Co. (IA & NE)
Des Moines, IA 50327, 515-247-5980

Hanley Equipment, Inc. (WI)
Sun Prairie, WI 53595, 608-877-5111

Ideal Mower Sales (Ml & Western OH)
Mansfield, MI 48220, 517-541-4200

Kaye Corporation (MN, ND & SD)
Mankato, MN 56001, 507-345-5083

Olsen Distributing Company (IL)
Barrington, IL 60010, 312-881-9333

WEST

Colorado Outdoor Power Eq., Inc. (CO, WY & NM)
Denver, CO 80223, 303-733-4651

Highland Equipment Co. (UT)
Salt Lake City, UT 84103, 801-364-9445

Huber Incorporated (AZ)
Phoenix, AZ 85016, 602-955-1731

Jenkins Machinery Company (CA, NV & HI)
Concord, CA 94520, 510-685-6665

Turf-Go Northwest (WA, OR & AK)
Seattle, WA 98036, 206-771-4665

CANADA

Consolidated Western Ind. Co., Ltd. (Alta & Sask)
Edmonton, Alta T5H 1S4, 403-484-7181

G. C. Duke Equipment Ltd. (Ont, Que & Maritime Provinces)
Burlington, Ont L7S 1M6, 416-637-5216

Par Equipment Ltd. (Man)
Winnipeg, Man R3J 3B3, 204-775-8988

Rollins Machinery Ltd. (B.C.)
Vancouver, B.C. V5T 1H8, 604-874-6404

Circle No. 121 on Reader Inquiry Card

TWO EASY TO READ BOOKS

by Carl E. Whitcomb
Professor of Horticulture, Oklahoma State University

PLANT PRODUCTION IN CONTAINERS

1. A Wealth of Experiments and Experience.
2. Practical Solutions to Problems in Nurseries and Greenhouses.
3. Straight-Forward and Easy to Understand.
4. Everyone Growing Plants in Containers Will Find This Book Useful.
5. Numerous Photographs Supplement the Text.
6. 640 Pages, Hard Back.
7. $29.50 Postpaid (U.S.)

Circle No. 120 on Reader Inquiry Card

KNOW IT & GROW IT II

A GUIDE TO THE IDENTIFICATION AND USE OF LANDSCAPE PLANTS

1. 1600 Black and White Photographs Supplement the Candid Text Covering 500+ Plants.
2. Common and Scientific Name Index.
3. 8' by 11', Large Reference Book.
4. 720 Pages, Hard Back.
5. $31.05 Postpaid (U.S.)

Circle No. 121 on Reader Inquiry Card

Lacebark Publications
Route 3, Box 174
Vollwover, OR 97044

For Information Contact Your Nearest RANSOMES Distributor

86 WEEDS TREES & TURF/NOVEMBER 1984
When you’re looking for a real investment

We’ll guarantee more than most.

The Hydraulic 5/7 Magna from Ransomes will give you a cutting capability you’ll find hard to match in other gang mowers.

Engage the large diameter reels under the hydraulic drive, and you can power through some of the toughest cutting conditions. And with hydraulic lift to the units, your transport time between sites is fast.

With the seven unit model, you can cut around 10,000 acres per year—a real return from your investment, backed by a full 12-month guarantee for professional usage.

Contact your nearest Ransomes distributor for a demonstration, or call Ransomes, Inc., One Bob Cat Lane, Johnson Creek, WI 53038, (414) 699-2000.
EVERY PROFESSIONAL KNOWS THAT QUALITY IS STILL THE MOST IMPORTANT ELEMENT IN ANY COMPLETE TURF CARE PROGRAM. Let's face it - low price is no substitute for poor product. Challenged by tough turf problems together with rising costs, you just can't afford to play games with products that don't perform consistently and economically. You need quality turf products you can depend on. You need COUNTRY CLUB and GREENSKEEPER PROFESSIONAL TURF PRODUCTS from LEBANON.

COUNTRY CLUB AND GREENSKEEPER FERTILIZERS ARE OF THE HIGHEST QUALITY HOMOGENOUS GRADES MADE TODAY - GIVING YOU MORE FEEDING POWER FOR YOUR DOLLARS. What makes homogenous fertilizers better? Each pellet contains a chemically-balanced combination of N-P-K, regardless of the material's sizing and coverage. The plant root needs only to come in contact with one pellet to receive a balanced diet. Consequently, you get even element distribution.

WHATEVER YOUR TURF NEEDS, THERE'S A COUNTRY CLUB/GREENSKEEPER PRODUCT SPECIALLY FORMULATED TO MEET THEM - ALL WITHIN YOUR BUDGET! Backed with over 35 years of extensive university and end-use testing, we offer you the most complete line of fertilizers and control products available on the market as well as a full range of S.C.U. blends and chemicals.

LEBANON CHEMICAL has the flexibility to formulate exactly the analysis your turf tests indicate to be most beneficial. We are fully equipped to manufacture your private label requirements when needed.

EVERY COUNTRY CLUB AND GREENSKEEPER PRODUCT IS BACKED WITH A TOTAL COMMITMENT TO SERVE YOU BETTER. Our technically experienced staff is eager to assist you in solving turfgrass problems and will design a complete turf care program for you! Plus you're supported by LEBANON'S solid network of distributors throughout the country that ensure you of product availability and prompt service.

THIS SEASON DEPEND ON COUNTRY CLUB AND GREENSKEEPER FERTILIZERS!!

Call Today for more complete information.
Distributor inquiries invited.

East  800-233-0628  Pennsylvania  717-273-1687
New Jersey  261-329-4011  Midwest  800-637-2101
New York/  516-722-4500  Illinois  217-446-0983
New England

LEBANON CHEMICAL CORPORATION
P. O. Box 180, Lebanon, PA 17042
P. O. Box 647, Danville, IL 61832

OSHA regulations. Standard features include two removable doors, sliding rear window, safety glass all around, seat belts, head and rear service light, interior dome light, flashing amber beacon, windshield wiper and defroster. Optional features include heater kit, air conditioner and emergency lighting kit.

Optional attachments include rotary broom, snow blade, snow plow and snow thrower. All attachments are 60 in. wide.

Circle No. 194 on Reader Inquiry Card

SNOW REMOVAL from page 30

Brooms play a role

Although most professional snow removers use either large blades or plows to push the snow or spinning metal augers to throw it (or a combination of blade and blower), sweeping with a rotary broom is better in some situations. This became apparent to millions of television viewers a few winters back when a Sweepster motorized sweeper spun onto the artificial turf at stadium at Foxboro, MA, whisked a neat little swath through the snow, enabling the New England Patriots to kick a last-second field goal to defeat the Miami Dolphins in a National Football League playoff contest.

These brooms, with their spinning polypropylene bristles, can be quite handy when removing snow from decorative pavers, artificial turf, grass, and other surfaces that could be damaged by a rigid blade. They come in a variety of sizes, from walk-behind models to Sweepster's four-foot diameter sweeper (requiring over 300 horsepower just to power the brush) that clears a 20-ft path.
SAVING MONEY ON PUMPING WATER HAS NEVER LOOKED SO GOOD.

How pumps powered with Franklin submersible motors can make your corner of the world green and quiet. And save you money, too.

Saving time saves you dollars. A submersible pump powered by a Franklin motor can be installed in one-third the time it takes for an above-ground line-shaft turbine.

And with a submersible pump, you won't have line shaft vibration and alignment problems, or any need for lubrication cost and troublesome ratchets.

A submersible eliminates expensive, energy-gobbling friction losses in a long drive shaft and multiple bearings.

Yet submersibles do more than save you dollars. Working quietly underground, a submersible keeps your view beautifully quiet. Built to run underwater, a submersible can't be flood-damaged. And submersibles are virtually vandal and varmint-proof.

To learn more about the advantages of submersible pumps equipped with Franklin motors, call Franklin Electric's Jim Hayes today at (219) 824-2900. Or write Franklin Electric Company, 400 East Spring Street, Bluffton, Indiana 46714.

Franklin Electric
Water for a Thirsty World
645-ADVANCES IN TURFGRASS ENTOMOLOGY edited by H.D. Niemczyk and B.G. Joyner A complete account of the facts presented at the 1980 Symposium on Turfgrass Insects. 200 photographs, tables and graphs make this volume an indispensable reference for anyone connected with the turfgrass industry or research. $24.95

615-TURF MANAGEMENT FOR GOLF COURSES by James B. Beard Written by an eminent turfgrass researcher, this USGA sponsored text is an ideal reference and 'how to' guide. Details all phases of golf course operations including course design and construction, turf management, course administration, irrigation, equipment and disease and pest control. Fully illustrated. $45.00

10,120 TURF MANAGERS' HANDBOOK by William Daniel and Ray Freeborg This specially designed manual by leading turf specialists is a comprehensive, organized approach to turfgrass science and care. An easy, on-the-job reference for planning, purchasing, hiring, construction and plant selection. $29.95 hardcover. $23.95 paperback

665-ARBORICULTURE: THE CARE OF TREES, SHRUBS AND VINES IN THE LANDSCAPE by Richard W. Harris Provides comprehensive coverage of complete planting, site analysis, preparation and special planting methods, fully-detailed coverage of fertilization, irrigation and pruning guidelines on preventative maintenance, repair and chemical control, how-tos of diagnosing plant problems, practical data on non-infectious disorders, diseases, insects and related pests and pest management. $34.95

300-LANDSCAPE DESIGN: A PRACTICAL APPROACH by Leroy Hannebaum Geared for the commercial designer/salesperson, this is a one-stop guide to the landscape design process. Covers the entire highly competitive field including design analysis techniques, pointers on land forms, specialized business landscaping methods, environmental design guidelines, specifications, estimations, bids. $19.95

360-RESIDENTIAL LANDSCAPING I by Theodore D. Walker Provides an in-depth discussion of the planning, design and construction phases of residential landscaping. Illustrated with the work of professional landscape architects. Covers everything from analyzing the site to constructing the landscape. $22.50

495-WOODY ORNAMENTALS by Parryka, Joyner, Rameespach, Carver Illustrates plant identification characteristics. Organized in two basic sections: plant identification and plant disorders, this text utilizes 430 color photos, 430 line drawings and 45 black and white photos to simplify identification. Goes into detail on plant identification and disorders as well as plant problems such as diseases, chemicals, insects, animals and physiological disorders. $17.80

345-COST DATA FOR LANDSCAPE CONSTRUCTION 1984 Kathleen W. Kerr, Editor An updated unit cost data reference for designers and cost estimators. Developed to fill the tremendous need for detailed landscape construction cost data. Laid out in easy-to-use CSI format. Annual. $28.75

655-TURFGRASS: SCIENCE AND CULTURE LABORATORY MANUAL by Beard, D'Paola, Johns and Karrick Class tested for over three years, this manual provides fourteen exercises which can be easily adapted to your particular course structure. Exercises involve students in vegetative and seed identification, disease and irrigation system selection and operation. Generalizing of typical math problems involved in turfgrass operations and the diagnosis of problems with emphasis on weeds, diseases and insects. Encompasses both warm and cool season turfgrass. $12.95

625 ADVANCES IN TURFGRASS PATHOLOGY by Dr. B.G. Joyner & Dr. P. Larsen Leading U.S. turf pathologists report on turfgrass diseases, pythium blight, snow molds, fairy rings, leaf spot of Kentucky Bluegrass in Minnesota, initial and final fungicide screening, turfgrass disease resistance, etc. Contains new ideas on how to combat turfgrass problems. $27.95

675-HILLIER'S MANUAL OF TREES & SHRUBS Another new fourth edition of this highly successful textbook presents essential concepts pertaining to tree and shrub selection, adaptation, storage in the soil and use by the plants. Basic understanding principles that govern irrigation practices are stressed. Generically organized, new ideas on how to combat turfgrass problems. $39.95

635-IRRIGATION PRINCIPLES AND PRACTICES by Hansen, Israelsen and Stringham A new fourth edition of this highly successful textbook presents essential concepts pertaining to tree and shrub selection, adaptation, storage in the soil and use by the plants. Basic understanding principles that govern irrigation practices are stressed. Generically organized, new ideas on how to combat turfgrass problems. $39.95

800-THE GOLF COURSE by G.C. Comstock and Ronald E. Whitten The first book ever to give the art of golf course design its due, and golf course architects the credit and recognition they deserve. 320 pages and approximately 150 color and black and white photographs. Traces the history and evolution of the golf course, analyzes the great courses, shows how they were designed and constructed. $35.00

810-HILLIER'S MANUAL OF TREES & SHRUBS This 5th edition is a unique reference source when selecting new shrubs and distinguishing between those already in the garden. Provides descriptions of over 8,000 plants with information on color, size and habit. Sections on nomenclature and classification, planting, pruning, and garden planning, plus an illustrated glossary, add to the usefulness of a book that will prove invaluable to both beginners and experienced gardeners. $20.56

665-ARBORICULTURE: THE CARE OF TREES, SHRUBS AND VINES IN THE LANDSCAPE by John Grimble Simonds A Manual of Site Planning and Design. This long-awaited second edition outlines and analyzes the complete landscape process from site selection to finished project. In simple and clear terms it describes various planning constraints imposed by the forms, forces and features of the natural and built landscape. $34.95
BOOKSTORE

ADDITIONAL TITLES

340 - CONSTRUCTION DESIGN FOR LANDSCAPE ARCHITECTS $39.50
410 - DISEASES & PESTS OF ORNAMENTAL PLANTS $32.50
660 - DISEASES OF SHADE TREES $23.50
610 - DISEASES OF TURFGRASSES $30.00
350 - HANDBOOK OF LANDSCAPE ARCHITECTURAL CONSTRUCTION $48.50
510 - HORTUS THIRD $125.00
690 - INSECTS THAT FEED ON TREES & SHRUBS $47.50
370 - LANDSCAPE OPERATIONS: MANAGEMENT, METHODS & MATERIALS $20.95

CLOSEOUTS

ORDER THESE TITLES AT SPECIAL REDUCED PRICES!

455 - THE GRAFTERS HANDBOOK $16.95
460 - GREENHOUSE ENVIRONMENT $21.20
335 - LANDSCAPE DESIGN THAT SAVES ENERGY $8.50

Mail this coupon to: Book Sales
Harcourt Brace Jovanovich Publications
One East First Street, Duluth, MN 55802

Name _______________________
Street Address _____________________________
P.O. Box Number _______________________
City/State/Zip _____________________________
Signature___________________________ Date __________
Phone Number _____________________________
Purchase Order Number _______________________

Please send me the following books. I have enclosed payment* for the total amount.
Please charge to my Visa, MasterCard or American Express (circle one)
Account Number ________________ Expiration Date _______________________

BOOK NUMBER AND TITLE QUANTITY PRICE TOTAL PRICE

*Please add $3.00 per order plus $1.00 per additional copy for postage and handling.

Please allow 5-8 weeks for delivery. Prices subject to change.
Quantity rates available on request.

Total Enclosed _________ WTT 84

NOVEMBER 1984/WEEDS TREES & TURF 91
If a lawn consists primarily of fine fescue, it is important to apply an insecticide at the first sign of damage to insect activity. These fescues are tolerant to most commonly used pesticides. No reports of serious injury with judicious pesticide usage have come to my attention.

**Special uses**

With the advent of improved varieties, use of fine fescues has increased greatly. Sod growers throughout New England have been adding up to 10% Chewings fescue to their Kentucky bluegrass blends. They find that the presence of the fescue widens the adaptation range (sun, shade, poor soils, low maintenance) of their product. Their customers increasingly are requesting sod containing some fine fescue.

Sod growers and users find other values of including fescues as well. Quick seed germination makes fine fescues useful as a nurse grass for other turf species and provides more rapid protection from soil erosion following seeding.

Research at the University of Rhode Island has also shown that sod roots faster after harvest when it contains fine fescue than when it is pure Kentucky bluegrass. This ability can be significant. When establishing research trials with putting greens at the Rhode Island Turfgrass Research Farm during the past 10-12 years, we have often seeded Chewings fescue with creeping and velvet bentgrasses.

By seeding one to four pounds of Jamestown Chewings per 1,000 square feet with the usual one pound of bentgrass, we have brought the greens into play faster and have seen no adverse effects.

As the bentgrass develops and matures the fescue slowly disappears. With weak bentgrasses, however, we have found that the fescue can persist even at 1/4-1/2-inch cut and, in some of our trials, fescue has persisted for over ten years.

The fine fescues, particularly Chewings, are also suggested for emergency seeding of damaged greens. Seeding at the rate of 20 to 25 pounds per 1,000 square feet, in conjunction with a normal rate of a seeded bentgrass, has proven effective. Because of their rapid establishment rate and good, short-term, tolerance to close mowing the fescues have served this purpose well.

Fine fescues have been used for years, often in mixture with perennial ryegrass, for overseeding Bermuda-grass putting greens, tees and lawns in the South. Improved cultivars of Chewings fescue have found particular favor and often constitute from 20 to 35 percent of an overseeding mixture with fine-textured, perennial ryegrass. Under dry winter conditions the fescues have made a special contribution. Mixtures of fine fescue and perennial ryegrass are often seeded at rates from 25 to 35 pounds per 1,000 square feet on greens and at 20 pounds on tees and lawns.

Progress has been made in developing fine fescues for turfgrass use. Improved cultivars of Chewings and hard fescue are available from many sources. Although markedly improved creeping or spreading fescues have not been developed, work is in progress and the potential is great.

In summary, fine fescues are a basic component of North American fine turf. Selection and breeding have and will continue to make these among the most versatile and useful of the turfgrasses.
A JOB WORTH INVESTIGATING...

Right now, 27 LESCO trucks are calling on golf course superintendents in major markets throughout the United States. Five new trucks will be added within the next several months—and you could be responsible for one of them.

Selling from a LESCO truck is not for everyone. It's like running your own business—the job is challenging and the rewards can be great. You determine your own success.

Read what our people say.

"I was a golf course superintendent for more than 20 years, but I enjoy the challenge of this job more than anything I've ever done. I'm still on the golf course everyday, but most weekends are mine to enjoy."
—Al Muhle
LESCO of Lake Erie

"I've been selling for LESCO in Florida for almost six years and my income has increased steadily every year. I'm making more money than I ever thought I would. LESCO offers excellent income potential."
—Keith Longshore
LESCO of East Florida

"I'm new with LESCO. Before I started, I was selling Toro equipment, but this is more satisfying because I'm really running my own show. This job was a great step up and I also like the fact that I didn't have to relocate."
—Paul Wolkiewicz
LESCO of Long Island

"I sold from one of the first LESCO trucks and now I'm responsible for the company's entire southeastern region. LESCO gives you the opportunity to grow."
—Phil Gardner
Southeastern Regional Manager

Do you think you have the potential to grow with LESCO? If so, we invite you to send your resume and salary history in confidence to: Mr. Fred Giese, Manager Human Resources, LESCO, Inc., 20005 Lake Road, Rocky River, Ohio 44116. Or call: (800) 321-5325 Nationwide; (800) 362-7413 In Ohio; (216) 333-9250 Cleveland.

We are an Equal Opportunity Employer. M/F

LESCO, Inc., 20005 Lake Road, Rocky River, Ohio 44116 • (216) 333-9250

NOVEMBER 1984/WEEDS TREES & TURF 93
NOVEMBER


DECEMBER

Exterior Landscape Contracting Conference, Dec. 2-5, Denver, CO. Contact Associated Landscape Contractors of America, 405 N. Washington St., Falls Church, VA 22046. (703) 241-4004.

Ohio Turfgrass Conference, Dec. 3-6, Ohio Center, Hyatt-Regency, Columbus, OH. Contact John Street, Ohio Turfgrass Foundation, Kottman Hall, Ohio State University, 2021 Coffey Rd., Columbus, OH 43210. (614) 422-2601.

New Jersey Turfgrass Expo, Dec. 3-6, International Hotel, Atlantic City, NJ. Contact Dr. Henry Indyk, Soils and Crops Dept., Cook College, P.O. Box 231, New Brunswick, NJ 08903. (201) 932-9453.

North Central Weed Control Conference, Dec. 11-13, O’Hare Exposition Center, Chicago, IL. Contact Claude Cruse, 309 W. Clark St., Champaign, IL 61820.


JANUARY

Associated Landscape Contractors of America Convention and Trade Show, Jan. 20-24, Kona Surf Resort, Kailua, Kona, HI. Contact ALCA, 405 N. Washington St., Falls Church, VA, 22046. (703) 241-4004.

New Hampshire Turfgrass Conference, Jan. 10-11, Center of New Hampshire, Manchester, NH. Contact John Roberts, Plant Science Dept., Nesmith Hall, University of New Hampshire, Durham, NH 03824. (603) 862-1200.

FEBRUARY

Golf Course Superintendents Association of America Show, Feb. 5-12, Washington, D.C. Contact GCSAA, 1617 St. Andrews Drive., Lawrence, KS, 66044. (913) 841-2240.

To ensure that your event is included, please forward it, 90 days in advance, to: WEEDS TREES & TURF Events, 7500 Old Oak Boulevard, Cleveland, OH 44130.
That's because the odds of winning are so favorable. Unlike other contests where millions enter and the odds of winning are astronomical, WT&T's "Folding Green" Sweepstakes is just for you Golf Course Superintendents who enter it during the GCSAA Show this February 5-13 in Washington, D.C.! In fact, the more times you enter, the better your chances of winning!

**HERE’S ALL YOU HAVE TO DO:**

1. You must be a Golf Course Superintendent registered at the Show. This Sweepstakes is not open to family members or exhibitors.

2. Get either copy of *WEEDS TREES & TURF*'s *Golf Daily* at the Show for listings of participating booths.

3. Go to any listed booth, get an entry blank with complete rules/details, fill it out, and drop it in the ballot box.

4. Enter as often as you like, but only once at each booth.

5. Pick up your prize — if you’re one of the lucky winners. Prizes will be mailed if winners are not present.

See you at the Show... and good luck!

SOIL TESTING FOR THE LAWN CARE INDUSTRY—Why Aren’t You Soil Testing? This complete service provides you with a thorough 14-point profile of your soil for maximum profits. Oliger Seed Company, 2705 Wingate Avenue, Akron, OH 44314. Call collect (216) 753-2259.


FINN STRAW BLOWERS, 220 engine, variable speed hydraulic feed, excellent condition. PROVICO Box 579, Botkins, OH 45306—513-693-2411.

LAWN CARE. Wholesale. Full line of top quality grasses. Improved bluegrass varieties, fine fescues and fine bladed ryegrasses. We specialize in custom mixing. Oliger Seed Company, 2705 Wingate Avenue, Akron, OH 44314. Call collect (216) 753-2259.

HYDRO-MULCHERS AND STRAW BLOWERS—New and used. JAMES LINCOLN CORPORATION, 3220 S. Jupiter Rd., Garland, TX 75041. (214) 840-2440 (TX), (800) 527-2304 (except TX) TF

TREE EQUIPMENT—USED-RECONDITIONED-NEW—Brush Chippers, Tree & Turf Sprayers, Bucket Trucks, Stump Grinders. For the Best Price, Service & Delivery ESSCO. Phone (516) 226-5104.

BUCKET TRUCKS, straight stick, corner mount and knuckle boom cranes. Sprayers, chippers, pumps, stakes, log loaders, crew cab chip box pumps, railroad trucks. 50 in stock. Sold as is or reconditioned. Opdyke’s, Hatfield (Philadelphia area), 215-721-4444.

TEXAS LANDSCAPE—15485 N. East Street, Lansing, Michigan 48906. Phone (517) 484-7726. Salary, profit incentive, medical benefits, etc. Please call: (516) 671-9638.


1979 F-600 Ford Spray Truck. 1000 gallon air tank, 25500 pounds, 12,000 hours, 2 speed rear axle, power steering, power brakes, P.T.O. pump, new tires, maintenance records, excellent condition. Call (313) 757-7700.

MEYER ZOYSIA—Pure Meyer Z-52 zoysia sod, big savings on water, bug killers, mowing and fungicide, great service. BEAUTY LAND ZOYSIA (Cincinnati) (513) 424-2052.

Meyer Zoysia Wholesale. Be the first to know. Call (513) 424-2052.


HELP WANTED

SPRAY MANAGER/SALES MANAGER—To run lawn and tree spray division of Abbey Tree Service. Salary, profit incentive, medical benefits, etc. Please call: (516) 671-9638.

TURF Manager for sod farm. Three years, management experience. Responsible for growing and marketing. Send resume and salary requirements to Pueblo of Sandia, P.O. Box 6008, Pueblo of Sandia, NM 87004.

NATIONAL SALES MANAGER—Rapidly-growing Indiana company seeking national sales manager with 10+ years experience in turf care market. Must possess exceptional sales, management skills. Excellent salary and benefits for qualified individual. Write WTT Box 347.

LANDSCAPE MAINTENANCE SALES—Positions available in sales with one of Dallas/Fort Worth’s leading landscape maintenance companies. Respondents must have experience in landscape maintenance or related field and comprehensive sales background. We’re looking for personable, ambitious and self-motivated people. Please send resume with salary requirements in care of WTT Box 350.

LANDSCAPE TURF SPECIALIST—Expanding landscape maintenance firm in Dallas area seeks experienced, knowledgeable individual licensed in ornamental pesticide applications. Serious opportunity for serious individual. Competitive salary plus benefits and bonus incentives. Send resume to include details of experience and salary requirements in care of WTT Box 351.

LANDSCAPE IRRIGATION SPECIALIST—Several openings for individuals qualified in total irrigation repair of major systems for Dallas area landscape maintenance firm. License helpful but not required. Majority of work on commercial properties. Salary commensurate with experience. Many benefits plus bonus opportunities. Send resume with complete experience background and salary requirements in care of WTT Box 352.

LANDSCAPE MAINTENANCE SUPERVISOR—Great opportunity available with large, quickly expanding firm in Dallas area. Must have landscape experience and technical knowledge in order to qualify. Excellent salary plus benefits and bonus incentive programs. Send resume describing pertinent experience and salary requirements in care of WTT Box 353.

LANDSCAPE MAINTENANCE AREA MANAGER—Established Washington, DC landscape company seeks aggressive person to oversee area production and quality in our expanding maintenance division. Degree in landscape maintenance and/or related field, and experience necessary. Advance opportunity and excellent company benefits. Please send resume to WTT Box 348.

LANDSCAPE CONSTRUCTION AND MAINTENANCE—TIRED OF LONG, COLD WINTERS? AWARD WINNING COMPANY IN ATLANTA SEEMS EXPERIENCE AND DEDICATION. FULL BENEFITS AND TOP PAY FOR A TWELVE MONTH SEASON. SEND LETTER AND RESUME TO CONVEY YOUR INTEREST. GIBBS LANDSCAPE CO. (FORMERLY GREENBROTHERS), 4111 BURGE ROAD, Smyrna, Georgia, 30080.
<table>
<thead>
<tr>
<th>NO.</th>
<th>ADVERTISER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Advanced Drainage Systems, Inc.</td>
<td>15</td>
</tr>
<tr>
<td>242</td>
<td>American Cyanamid</td>
<td>46-47</td>
</tr>
<tr>
<td>102</td>
<td>Atwater Strong</td>
<td>94</td>
</tr>
<tr>
<td>103</td>
<td>Briggs &amp; Stratton</td>
<td>4-5</td>
</tr>
<tr>
<td>104</td>
<td>Brouwer Turf Equip. LTD</td>
<td>CV3</td>
</tr>
<tr>
<td>105</td>
<td>Bunton Co.</td>
<td>50-51</td>
</tr>
<tr>
<td>106</td>
<td>Cushman</td>
<td>34-35</td>
</tr>
<tr>
<td>107</td>
<td>Deere &amp; Co.</td>
<td>7-12</td>
</tr>
<tr>
<td>108</td>
<td>Dow Chemical U.S.A.</td>
<td>CV2-p.1</td>
</tr>
<tr>
<td>109</td>
<td>Dupont-Landscape Fabric</td>
<td>41</td>
</tr>
<tr>
<td>110</td>
<td>Estech, Inc.</td>
<td>63</td>
</tr>
<tr>
<td>111</td>
<td>Estech, Inc.</td>
<td>16</td>
</tr>
<tr>
<td>112</td>
<td>Excel</td>
<td>36</td>
</tr>
<tr>
<td>229</td>
<td>E-Z-Go</td>
<td>61</td>
</tr>
<tr>
<td>114</td>
<td>Franklin Electric Co.</td>
<td>89</td>
</tr>
<tr>
<td>115</td>
<td>Gienmac, Inc.</td>
<td>94</td>
</tr>
<tr>
<td>116</td>
<td>Gravely International</td>
<td>59</td>
</tr>
<tr>
<td>117</td>
<td>Hahn, Inc.</td>
<td>67</td>
</tr>
<tr>
<td>118</td>
<td>Hoffman, Inc.</td>
<td>14</td>
</tr>
<tr>
<td>127</td>
<td>Howard Price Turf Equip.</td>
<td>65</td>
</tr>
<tr>
<td>119</td>
<td>I.C.I. Americas, Inc.</td>
<td>69</td>
</tr>
<tr>
<td>120</td>
<td>F.D. Kees</td>
<td>92</td>
</tr>
<tr>
<td>121</td>
<td>Laceyboard Publications</td>
<td>86</td>
</tr>
<tr>
<td>122</td>
<td>Lebanon Chemical Corp.</td>
<td>70</td>
</tr>
<tr>
<td>123</td>
<td>Lebanon Chemical Corp.</td>
<td>88</td>
</tr>
<tr>
<td>124</td>
<td>Lesco, Inc.</td>
<td>25</td>
</tr>
<tr>
<td>254</td>
<td>Locke Mfg.</td>
<td>43</td>
</tr>
<tr>
<td>256</td>
<td>Lots Seed Co.</td>
<td>CV4</td>
</tr>
<tr>
<td>128</td>
<td>Mallinckrodt, Inc.</td>
<td>83</td>
</tr>
<tr>
<td>129</td>
<td>Miero Company</td>
<td>33</td>
</tr>
<tr>
<td>130</td>
<td>Midmark</td>
<td>71</td>
</tr>
</tbody>
</table>

WANTED

To buy HYDRO SEEDER. Please send photo. Johnson Hydro Seeding Co., 1375 Trawler Road, Rockville, MD 20850, 301/340-0805. TF

WANTED: Large Lindig and Royer Spreaders. Lewis Equipment, 320 Third Street S.W., Winter Haven, FL 33880, (813) 294-5893. 2/85

POSITION WANTED

Chemical Lawn and Tree Care Manager — Seeks challenging management position for same in Florida. Seven years experience. Resume upon request. Write WTT Box 349. TF

MISCELLANEOUS

Use Our Classified Blind Box Service for Confidential Results!

PORTABLE FIELD IDENTIFICATION MACROSCOPE—Make precise "on sight" diagnoses of fungus, insects and diseases. Compact unit only 6" long converts to scope for estimating distances and tree heights. Options include light stand and camera adaptor. $99.00 (includes postage). Green Pro Cooperative Services, 380 S. Franklin St., Hempstead, NY 11550. (800) 645-6464, In NY (516) 538-6444. 10 day money back guarantee. Visa/Mastercard. 11/84

DIESEL HI-RANGER TOWERS—48-100 Feet working heights. Daily, weekly, monthly rentals with or without operator. MATLOCK LEASING, Pottstown, PA (215) 326-7711 or (800) 345-7711. 12/84

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

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

Statement required by the Act of October 23, 1962, Section 3685, Title 39, United States Code, showing the ownership, management and circulation of WEEDS, TREES AND TURF published monthly at One East First Street, Duluth, St. Louis County, Minnesota 55802, as filed September 25, 1984.

The name and address of the Publisher is: DICK GORE, 3091 Maple Drive, Maple Center One Building Atlanta, GA 30305.

The owners are: Barclays Nominees Branches Limited, 4 George Yard, Lombard St., London EC3, England; Cede & Co., c/o The Depository Trust Co., P. O. Box 20, Bowling Green Station, New York, NY 10274; Katharine Brace Cummings, c/o Ernst, Cane, Bener & Gittin, 7 West 51st St., New York, NY 10019; Ellen Knowles Harcourt, William I. Jovanovich & Peter J. Ryan as Ttees U-T-A Dtd 5/23/66, c/o First National City Bank, 20 Exchange Place, New York, NY 10005; Gunther & Co., Box 395, Four World Trade Center, Church St. Station, New York, NY 10008; Mrs. Thelka E. Johnson, 19 Hewitt Ave., Bronxville, NY 10708; Walter J. Johnson, 19 Hewitt Ave., Bronxville, NY 10708; William Jovanovich, P. O. Box 1447, Apopka, FL 32704, Kray & Co., 120 South LaSalle St., Chicago, IL 60603; Pacific & Co., P. O. Box 7877, San Francisco, CA 94120; Rice & Co., c/o Agency The Toronto Dominion Bank, 42 Wall St., New York, NY 10005; Joseph C. Sinderel, 794 Park Blvd., Glen Ellyn, IL 60137.

The known bondholders, mortgagees and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities are: None.

Names and addresses of individuals who are stockholders of the corporation which itself is a stockholder of the publishing corporation have been included in the two paragraphs above when the interests of such individuals are equivalent to 1 percent or more of the total amount of the stock or securities of the publishing corporation.

Average number of copies of each issue during preceding 12 months, and of single issue nearest to filing date, respectively, are as follows: Total number of copies printed (net press run) 49,683 - 49,550; paid and/or requested circulation (1) sales through dealers and con agencies, street vendors and counter sales: None - None; (2) mail subscriptions (paid and/or requested): 42,462 - 45,396; total paid and/or requested circulation: 42,462 - 45,396; free distribution by mail, carrier, or other means, samples, complimentary and other free copies: 6287 - 3894; total distribution: 49,550 - 50,290; copies not distributed (1) office use, left over, unaccounted for: None - None; return from news agents: None - None; total: 50,290 - 50,000. I certify that the statements made by me above are correct and complete.

(Signed) Joe Bilderbach, Vice President/Circulation.
The Repackaging of Lawn Care

The original success of professional lawn care was packaging. Technology, clearly different from what homeowners used, was developed and vigorously marketed by a few progressive businessmen.

This package was accepted as unique and, like many new ideas, became contagious to both customers and small businessmen seeking a growth market in which to make their fortunes.

The lawn care package remains successful after 20 years and is predicted to stay that way for at least another 15 years.

But, rather than waiting for the package to get old, a few successful lawn care businessmen are reexamining its contents to either extend its life or to create a new formula.

The most common idea is to make other services available to current lawn care customers. Once a customer gets used to a company, he will be inclined to use it for other needs; such as structural pest control, carpet cleaning, and horticultural jobs like tree care, mowing, dethatching, lawn renovation, and aerification. The term 'full service' is spreading rapidly across the industry.

Those experimenting with repackaging have discovered something critical to success of new services, when you change the name of the company just for a particular service you weaken the connection between the customer and your original good work. Also, the customer wants to write one check to one company, not two or three checks to different companies at the same address.

The investment and energy in repackaging has increased tremendously in the past two years as mid-size lawn care companies do technological battle with Chemlawn. These companies have reached a point where they too can afford Ph.D.s and marketing wizards to explore the limits of lawn care. They are now going directly to chemical and equipment manufacturers to develop new technologies to give them an edge over competitors.

The pot of gold at the end of the rainbow for mid-size companies is to go public. These companies must go public no later than the mid- to late-80's while the market growth rate is on the way up. If repackaging helps them go public faster, there is virtually no limit to what they will spend to develop new technologies for growth.

The lawn care package is changing. It will be many years before anyone can pin the label 'mature' on the lawn care industry.

Bruce F. Shank, Executive Editor

WT&T Editorial Advisory Board

Douglas Chapman
Horticulturist
Dow Gardens
Midland, Michigan

Kent Kurtz
Professor, Horticulture
Cal Poly - Pomona

Harry Niemczyk
Professor, Turfgrass Entomology
Ohio State University
Wooster, Ohio

Roger Funk
Vice President
Davey Tree Expert Co.
Kent, Ohio
THE NEW SUPER TEAM

- Quality
- Reliability
- Service

Super-3 mower
FINALLY A REEL MOWER MADE FOR SMALL TRACTORS
The P.T.O. Model is easily hooked up to any suitable tractor.
The Engine Model is equipped with a 7 H.P. engine. It can also be pulled by trucksters or ATC's.

Outstanding Features:
- Unique and simple mechanical drive system
- Heavy duty mowing units, with a choice of 5, 6 or 7 bladed reels
- Easy reel lift for transport and storage
- Jack stand for easy unhooking and parking
- Designed to deliver a fine quality cut in long, short, wet or dry grass
- Mows up to 40 acres (16.2 ha) per day

Tripex-376 mower
A REAL PROFESSIONAL TRIPLEX MOWER
Improved mowing, quality and styling.
Reels are dynamically balanced to provide a beautiful fine cut.

Outstanding Features:
- Free floating reels with anti-scalp rollers
- Precise and easy height of cut adjustment
- Raise and lower cutting units from operator's seat
- Equipped with a quiet reliable 8.5 H.P. engine
- The transmission has 3 speeds forward and 1 reverse.
  Also a diff' lock is standard
- Excellent operator comfort and visibility with hand brake as a bonus
- Mows up to 30 acres (12.1 ha) per day

BROUWER
TURF EQUIPMENT LIMITED
7320 Haggerty Rd./Canton, MI. 48187 Telephone (313) 459-3700
Woodbine Avenue/Keswick, Ontario, Canada L4P 3E9 Telex 065-24161 Telephone: (416) 476-4311

Circle No. 104 on Reader Inquiry Card
"Just another perennial ryegrass? Not when it's called 'Palmer'!"

Arnold Palmer

"If a ryegrass is going to be named Palmer, it would have to be very special. And believe me this one is.

"As you know, I'm a golf course owner and I'm involved in golf course design and construction with the Palmer Course Design Company. That makes me very critical of turfgrass. Let me tell you some of the qualities we're finding in this variety. First of all, whether used in the North or South, Palmer shows excellent heat and drought tolerance and exceptional resistance to brown patch and leaf spot. Secondly, it establishes very quickly. In no time flat you can have a cover of fine-leafed, attractive, dark green turf. When it comes to mowing, it cuts neat and clean.

That makes it look good and play well. In fact, some of the best turf I've played on lately has been seeded with Palmer ryegrass.

"Just check the latest university test results and compare other perennial ryegrasses to Palmer . . . it's a winner."

Whether you're seeding a golf course, athletic field, cemetery or home lawn, you can expect the same performance Palmer ryegrass is giving on golf courses like Harbour Town at Hilton Head, The Tournament Players Club and Bay Hill in Florida or Ironwood in California where it's a big part of the overseeding programs.

Circle No. 256 on Reader Inquiry Card

Lofts Inc.
Bound Brook, NJ 08805
(201) 356-8700  •  (800) 526-3890

Sunbelt Seeds, Inc.
Norcross, GA 30093
(404) 448-9832

Lofts/New England
Arlington, MA 02174
(617) 548-7300

Lofts/Great Western
Albany, OR 97321
(800) 547-4063

Lofts/Maryland
Beltsville, MD 20705
(301) 937-9252