

# WEEDS TREES & TURF

The magazine of **LANDSCAPE MANAGEMENT**

LAWN CARE  
IN CRISIS





# NOW YOU'VE GOT TWO CONVENIENT WAYS TO APPLY THE NUMBER 1 NAME IN TURF HERBICIDES.

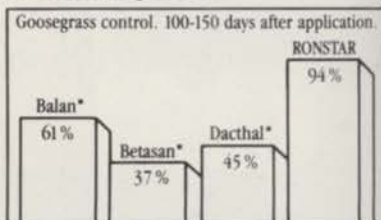


With Chipco® Ronstar® G and new Chipco Ronstar WP, problem weeds never see the light of day.

Golf course superintendents have made Chipco® Ronstar® herbicide the product of choice for pre-emergence weed control. And rightly so.

Just one application of Chipco Ronstar provides season-long control of 25 tough broadleaf and grassy weeds. Without the root pruning or leaching you get with other turf herbicides.

Plus, Chipco Ronstar still ranks as the Number 1 way to control stubborn crabgrass and goosegrass. Test results prove it.



Summary of 9 years of testing conducted by University Experiment Station and Rhone-Poulenc personnel.

And now, Chipco offers you the choice of easy-to-spread Chipco Ronstar G granules or easy-to-spray Chipco Ronstar WP wettable powder.

So start the season with Chipco Ronstar G or new Chipco Ronstar WP—the best way to keep weeds out of sight and out of mind.

Rhone-Poulenc Inc., CHIPCO Department, P.O. Box 125, Monmouth Junction, NJ 08852.



# CHIPCO® RONSTAR®

HERBICIDE

Please read label carefully and use only as directed. Apply Ronstar only on turfgrass varieties included on the label.

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Wouldn't it be great  
if your old standby  
broadcast herbicide  
could also handle  
early-emerging HTCs\*



\*Hard-to-control weeds like oxalis, ground ivy, prostrate spurge and wild violet.

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# WEEDS TREES & TURF

The Magazine of **LANDSCAPE MANAGEMENT**



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# Introducing your new old standby.

That old standby broadcast amine turf herbicide of yours has just been made obsolete with new TURFLON\* II Amine Herbicide from Dow.

#### **Stops HTCs in the broadcast round**

You see, TURFLON II does everything your old standby does, and a whole lot more. Like control those hard-to-control weeds that can emerge early and sneak through your old standby. Weeds like oxalis, ground ivy, prostrate spurge and wild violet. Weeds that keep your phone ringing and your cash register quiet.

#### **New turf chemistry**

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#### **Safety tested**

The low volatility of the TURFLON II activated amine formulation gives you less odor to worry about. It has a proven safety record and won't migrate in the soil to the roots of ornamental plants.

So if you're tired of being let down in the broadcast round by your old standby, turn to TURFLON II this year.



## TURFLON II

It's your new old standby.



\*Trademark of the Dow Chemical Company



## Superintendents taken out of the closet

■ The golf course superintendent's contribution and importance to the game has been in the public eye during the 1986 pro golf season. ESPN-TV's "Inside the PGA Tour" featured a segment on golf course superintendents in a recent broadcast. Reported by PGA agronomist Bill Buchanan, the feature noted the superintendent's job is to keep a proper balance between what is best for the turf on his golf course and what is best for the golfer.

Claud Corrigan, editor of the Mid-Atlantic Association of Golf Course Superintendent newsletter, notes: "The show was just one more example of the excellent media coverage superintendents have been getting, which may indicate that (our) public relations efforts are paying off."

Additionally, superintendent Peter Smith of Shinnecock Hills GC appeared on "Good Morning America" during this year's U.S. Open to acquaint millions with the super's role.

## Bad news for pesticides

■ Amendments to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) have now been approved by the Senate Agriculture Committee. In June, the House Agriculture Committee had approved a similar bill. That means the bills for stronger pesticide controls need only be approved by both houses of Congress to become law.

The amendments would accelerate the EPA's program for retesting older pesticides, would establish new health and safety standards to protect against contaminated drinking water, and would require companies to complete thorough health and safety standards on minor ingredients in their pesticides.

Long-term impact on the green industry? Fewer pesticides with higher price tags. Not good news.

## And more bad news

■ In a related development, the U.S. House of Representatives voted 329 to 4 to strengthen the law protecting public health and the environment from chemical pesticides, according to the *New York Times*. The legislation comes in the wake of a series of biased media reports on the risks of pesticide exposure.

If passed by the Senate and signed into law by the President, the bill would accelerate the retesting of more than 600 herbicides and would require the retesting of all chemicals registered before 1972 to be completed over the next nine years.

The bottom line: the amendment may be doomed to failure because it does not provide sufficient funds to enable the EPA to meet retesting deadlines.

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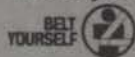
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## GOLF

### 'Black layer' damaging nation's greens

It doesn't matter whether it's an old green, or a new one; in California or New Jersey; summer or fall. Black layer will strike greens anywhere, at any time.

James Snow, director of the USGA Green Section's Northeastern Region, says black layer is a layer of anaerobic material, rotting organic matter, resulting from poor drainage in the green.

Superintendents usually discover it when the turf becomes weak and develops poor root systems and the soil remains saturated. A soil probe will show the black layer at the same level in the green.

Snow says that a number of things could have gone wrong in the green's construction, causing black layer.

"The materials rototilled into the top layer may not have been mixed properly. Water backs up and rots the material," Snow explains. "Maybe they never sent materials to our soil lab in Texas. Or, maybe they did, but the sand they sent wasn't a representative sample."

Gary Watchke of the USGA in Connecticut fought black layer in his greens at Iowa State University. "We found root-rotting pythium and algae which thrive on free water," Watchke says. "I've seen black layer more frequently in high sand greens, maybe because superintendents water those more often."

Black layer can hit at any depth of the green. Snow recommends careful watering and frequent aeration, which helps break through the layer. Watchke says the fungicide systemic Aliette can fight pythium in the roots.

If the layer is deep in the green, it may need to be rebuilt. In some cases, however, Snow says drainage lines can be installed without rebuilding the green.

Black layer can hit at any time, but is more common in the summer when the green is under stress, and during persistent rainfall. Watchke says the problem will often resolve itself after several years when the soil regains a balance.

## BUSINESS

### Corporate 'bad breath' costly, expert warns

Telephone skills can be powerful tools for any landscape company. Telephone skills produce new business, promote company goodwill, build confidence, elicit cooperation, resolve doubts, and lower tension.

"In that first moment of contact, a well-trained receptionist is more valuable to the company than its highest-paid estimator," says Richard Lambert, author of a new audio cassette series entitled "Professionally Speaking."

But the opposite can also be true. "Corporate 'bad breath,' as we call it, can be a costly problem," advises



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INDUSTRY

## OMC Lincoln buys Brouwer Turf Equipment

OMC Lincoln, the parent company of Cushman-Ryan, has acquired Canadian-based Brouwer Turf Equipment. OMC president James Chapman and Brouwer president Gerry Brouwer agree that the Sept. 5 acquisition will provide growth opportunities for both companies.

"Our company was not for sale," Brouwer tells *WEEDS TREES & TURF*. "But OMC approached me with an interesting growth plan that changed all that. With an aggressive plan of introducing several new products in the



Gerry Brouwer (left) and James Chapman discuss business.

### Bad Breath from page 6

Lambert. "Our surveys show that seven out of 10 people who decide not to do business with a landscape contractor make that decision because of the way they're treated on the phone. There's strong evidence to show that poor phone skills do real damage to a contractor's business relationships."

When consulting with contractors, Lambert says the telephone is usually his starting point.

"Creating a good first impression is critical when you're marketing an intangible such as landscape services. The telephone either helps or hurts you immediately.

The biggest complaint appears to be putting callers on hold.

Recorded on three audio cassettes with an accompanying study manual, "Professionally Speaking" is available for \$68 postage paid from The Idea Bank. For more information, call (800) 621-1136—in Arizona, (602) 829-1233.

years ahead, we now have the resources to accelerate their introduction."

In 1985, Brouwer reported sales of more than \$10 million in the U.S.

OMC's sales were about \$880 million.

"As the turf installation and turf care business grows, so does the demand for turf equipment," Chapman notes.

### ATHLETIC TURF

## Athletic turf tips (continued)

*WEEDS TREES & TURF* has received many inquiries about the athletic field articles which appeared in our September issue. Here are some answers:

- We encourage you to promote safer playing fields to your community. Tell your P.T.A. and administration the critical role safe fields play in education. Show them the articles.

- If you want copies or reprints, contact Kathleen Mac-

iuszko at (216) 826-2839.

- Since the articles carry a copyright, you are bound by law to request permission if you wish to use lengthy excerpts from them. Always credit WT&T and send us a copy of how the article is used.

- We would also like to hear the reaction you get within your community or school system. Please write us: *WEEDS TREES & TURF*, 7500 Old Oak Blvd., Cleveland, OH 44130.

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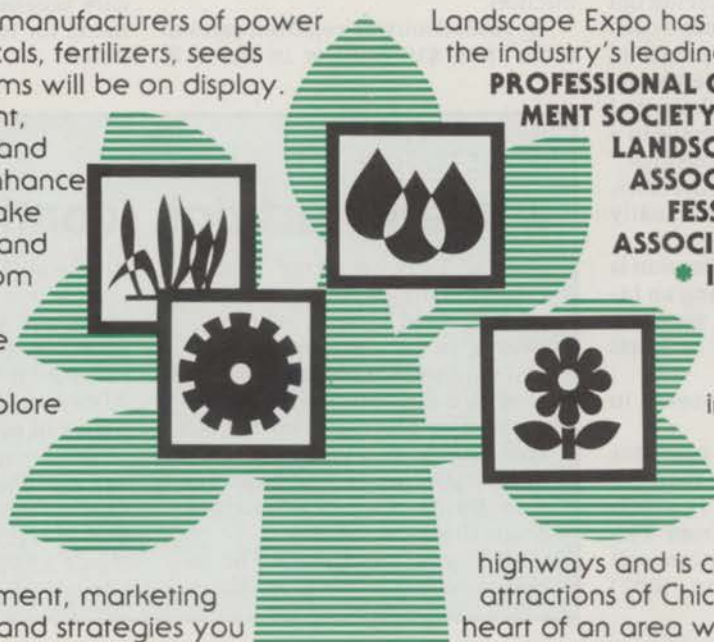
### MARCH 3-5, 1987

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## THE RIGHT STUFF FOR LANDSCAPE PROFESSIONALS

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Landscape Expo has the active support of the industry's leading associations: **THE PROFESSIONAL GROUNDS MANAGEMENT SOCIETY** • **THE ASSOCIATED LANDSCAPE CONTRACTORS ASSOCIATION** • **THE PROFESSIONAL LAWN CARE ASSOCIATION OF AMERICA** • **ILLINOIS LANDSCAPE CONTRACTORS ASSOCIATION.**

Landscape Expo is in the right place too. O'Hare Exposition Center in Rosemont, Illinois is convenient to airports, major highways and is close to the sights and attractions of Chicago. O'Hare is at the heart of an area with over 16,000 landscape professionals within 300 miles.

Join your colleagues at the Second Annual Landscape Expo, March 3-5, 1987, O'Hare Exposition Center, Rosemont, Illinois. You'll come away with the right stuff.

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## CONFERENCES

### Landscape Expo has comprehensive slate

The Second Annual Landscape Expo March 3-5 in Chicago will have 30 seminars in private sector, public sector, and technical tracks.

The preliminary program for private sector landscape managers includes such topics as leasing, lawsuits, computers, pricing, hiring, firing, and compensation.

The preliminary program for those in the public sector includes topics like collective bargaining, the media, recruiting personnel, vandalism, budgets, estimating labor, and "The Parks and Playgrounds Crisis: A Legal and Insurance View."

Technical topics include ground-water, thatch, herbicides, PGRs, and renovation.

Expanded 3½-hour workshops are titled: "Development and Implementation of an Employee Training Program," "Estimating and Management Principles for Landscape Contractors," and "Tips on Buying and Maintaining Power Equipment."

The Expo will be held at the O'Hare Exposition Center in Rosemont, Ill. More than 150 manufactur-

ers of products for the green industry have already registered as exhibitors at the trade show.

## PESTICIDES

### Pesticides require special handling

Here are several points to remember when handling pesticides to reduce exposure:

1. Do not smoke while using pesticides.

2. Do not carry lunches in the vehicle containing pesticides. If it must be done keep the lunch in a tightly sealed metal lunch pail. Don't use a paper bag.

3. Wash hands before eating. The back of the hand absorbs almost twice as much pesticide as the front. Wash thoroughly before eating, after using concentrates, and at the end of the day.

4. Avoid beards, but if you have one, wash it thoroughly each day. Beards readily absorb and hold pesticides and make it difficult to get a tight fit with a respirator or gas mask.

5. Keep fingernails short so dirt and pesticides do not absorb under the nails.

6. Avoid pants with cuffs; cuffs hold excessive pesticides.

7. Change clothes daily and wash clothes separately.

8. Keep pesticides in containers with tight lids. All items should fit tightly so they do not move, tilt, or spill when stopping. Avoid the use of wooden boxes for liquid pesticides as they readily absorb pesticides and therefore, emit vapors.

9. When handling pesticide concentrate, use non-cloth lined gloves.

10. Carry and use a funnel when pouring pesticides to reduce chances of spillage.

11. Place the funnel in a tightly sealed container when not in use.

12. Use paper towels instead of rags for wiping hands.

13. Within the vehicle, store pesticides in areas outside of where the driver sits. Always keep the window cracked.

14. Line the bottom of the truck (or vehicle carrying the pesticide) with a plastic liner; cover the liner with a pre-cut piece of cardboard. If a large spill occurs, the plastic prevents the pesticide from saturating the trunk.

15. Carry pesticide-absorbent material for small spills. Commercial absorbent used in garages is sufficient.

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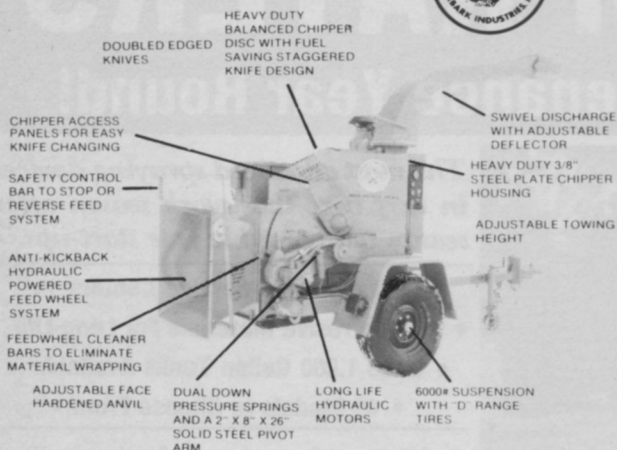
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## EVENTS

### NOVEMBER

**Empire State Turf and Grounds Exposition**, Nov. 12-14, Rochester (N.Y.) Riverside Convention Center. Contact New York State Turfgrass Association, 210 Cartwright Blvd., Massapequa Park, NY 11762. (516) 541-6902.

**Professional Lawn Care Association of America Conference and Show**, Nov. 17-20, Baltimore Convention Center, Baltimore, Md. Contact PLCAA, 1225 Johnson Ferry Rd. NE, Suite B 220, Marietta, GA 30067. (404) 977-5222.

**Northeast Ohio Horticultural Trade Show**, Nov. 18-19, Michaud's Towne 'N Country, Strongsville, Ohio. Contact OARDC, Administration Bldg., Wooster, OH 44691. (216) 263-3831.

**American Society of Landscape Architects Annual Meeting and Educational Exhibit**, Nov. 22-25, Moscone Convention Center, San Francisco, Calif. Contact ASLA, 1733 Connecticut Ave. NW, Washington, D.C. 20009.

### DECEMBER

**New Jersey Turf Expo**, Dec. 1-4, Resorts International Hotel, Atlantic City, N.J. Contact Dr. Henry W. Indyk, Soils & Crops Dept., Cook College, New Brunswick, NJ 08903. (201) 932-9453.

**International Society of Arboriculture Illinois Chapter annual meeting**, Dec. 1-2, Pheasant Run Resort, St. Charles, Ill. Contact ISA, P.O. Box 71, Urbana, IL 61801.





Frank J. McDonald, Director of Marketing  
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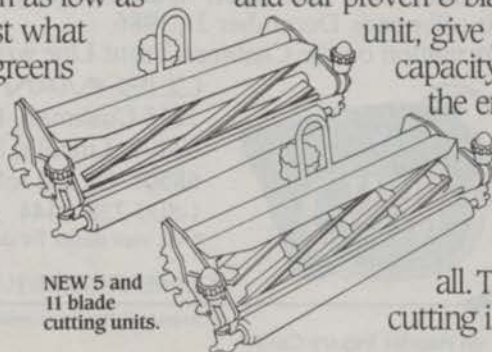
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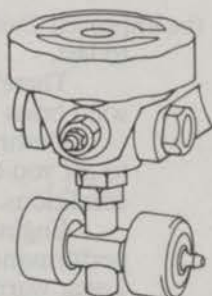
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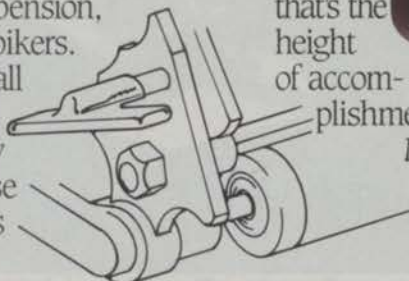


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cut kit you can easily change your height-of-cut to 5 different levels. Each flip of the handle alters the height-of-cut by .100 inch within a total range of 1/2" above the cutting unit bench setting.

For further versatility and productivity, Toro provides a full range of bedknives, rollers, combs and brushes. Plus options that include direct suspension, thatchers and spikers.

Put them all together and it's easy to see why more Golf Course Superintendents depend on the Greensmaster



Quick height-of-cut adjustment.

300 than any other riding greensmower in the world. And why you should, too. For precision cutting, only the Greensmaster 300 lives up to your lowest expectations. And in a profession like yours, that's the height of accomplishment.

**More information available from your Toro Distributor.**

Contact your

local Toro distributor for additional information or a demonstration. Or write The Toro Company, Commercial Marketing/Dept. G3, 8111 Lyndale Ave. So. Minneapolis, MN 55420.



Greensmaster 300.

**TORO**<sup>®</sup>

**The professionals that keep you cutting.**

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# GIVE US YOUR BEST

Major mower manufacturers tell what is their strongest product and what features make the product their best seller.

by Heide Aungst, associate editor

Let's face it: choosing a mower is not an easy task. With so many products already on the market, and "new-and-improved" mowers with every gadget imaginable being introduced, the choice is enough to confuse anyone.

To top it all off, golf course superintendents and landscape managers have special considerations. There's a mower for greens, a different one for fairways or roughs. There are flail, rotary, reel, or sickle bar mowers...walk-behinds, riding, or pull-behind...small, mid-size, or large.

To help sort things out WEEDS TREES & TURF asked mower manufacturers to name the products they see as their stronghold in the market, and those features which make it a good mower. Here's what they said:

## Alamo Group

- Rhino general purpose and heavy duty flail mowers. These mowers give a manicured look to the cut and provide safety when working in populated areas, such as on a golf course. The mower projects objects to the ground, rather than out towards people.

## Ariens Company

- 21-inch 5-hp self-propelled walk-behind model, which has a new design with three-way discharge (rear bag/side/mulch), high horsepower, and high vac deck.
- 30-inch 8-hp rear-engine riding mower. Ariens pioneered the rear-engine rider, and it has been well-received by the market for 28 years, in part because the company has kept current in design features.

## Bomford & Evershed Ltd.

- Bandit linkage-mounted flail mower, which has a 10-year history of reliability, low running costs, and good cutting performance.
- BL68 flail verge mower, because of

versatility and ease of fitting.

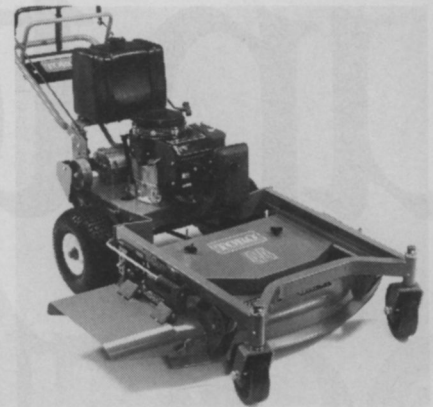
- B77-77 flail embankment mower, with electro-hydraulic controls and ability to cut on either side of the tractor.

## Brouwer Turf Equipment

- Model M20 fairway mower for golf courses.
- Model M08 standard mower used for sod farms, golf courses, and municipal areas.
- Brouwer 376 triplex used by landscapers, golf courses, and institutions. All three mowers are designed and engineered with simplicity in mind. Features include P.T.O. positive drive line, V-belt driven for low hp requirements, as well as easy and inexpensive service and repair. Units are designed for low ground compaction as well as low hp tractor requirements which also lends itself to low fuel costs.

## Bunton Co.

- 28- to 61-inch self-propelled Bunton



The Toro commercial 112 mid-size with 44-inch cutter deck.



Ariens 21-inch walk-behind mower.



The John Deere 16-hp 332 diesel tractor.



Cushman Front Line Tractor, model no. 807.





## The first heavy-duty work vehicle that's light on your turf.

The Hahn Multi-Pro 44 work vehicle sprays, fertilizes, top dresses, seeds, aerates, dumps and hauls...yet is gentle enough on turf to be used on delicate greens.

Fingertip controls and adjustable flow rates give you greater spraying control. A unique low center of gravity helps prevent tipping, even on soggy slopes. And the Multi-Pro's heavy-duty design gives years of low-maintenance, easy operation. Interchangeable dump bed, Aerifier® and spreader attachments are also available. For a free demonstration call:

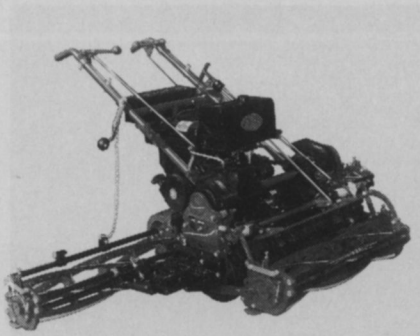
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# Hahn







Locke's 70-inch cut triplex mower with reverse transmission.



Kinco's model KMG-38 sickle bar mower.



The Jacobsen Greens King IV diesel-powered riding triplex greensmower.



A Walker mid-size riding mower.



Vrismo's Mighty Max front wheel flail.

commercial rotary mowers. Bunton markets seven different sizes of mowers within this range.

● Walk-behind greensmower. Bunton holds a dominant share of the market for both the commercial rotary mowers and the walk-behind greensmower.

#### Cushman Ryan/OMC Lincoln

● Cushman Front Line Rotary Mowers used primarily for commercial turf mowing conditions. The product features the Cushman name and long-term reputation. It comes in a variety of models and prices, and has the number-one collection and dumping system on the market.

● Brouwer Reel Mowers in 3-, 5-, 7-, and 9-gang configurations. (The purchase of Brouwer Turf Equipment by OMC Lincoln became effective Sept. 5).

#### Dandl Manufacturing Co. Inc.

● Industrial Expando mower adjusts to a width from 9 to 18 ft. while moving. It's used for park mowing. The mower hooks up with a three-point hitch for easy disconnection, while the rear machine is pulled by a hydraulically activated pull-tow. The operator controls the machine from the front seat.

● Industrial grass mower with a three-point hitch available in 74-inch, 88-

inch, 8-ft., and 9-ft. The mower features a patented self-balancing bearing on the cutting shaft which lengthens the life of the mower by minimizing vibrations. It is a heavy duty machine with 1/4-inch end plates, 1/2-inch A-frame and top braces, and a 10-gauge case.

#### Deere & Co.

● 300 and 400 series lawn and garden tractors with 50-inch and 60-inch center-mount rotaries. Based on sales figures, Deere sells more mowers in that size range. Also, it is a product they have manufactured for a long time.

#### Excel Industries

● Excel's Hustler turf equipment, the main line of 72-inch out-front rotary mowers, model Nos. 275, 320, 340, 400. All are designed with drive-wheel steering which make them more maneuverable and more productive. They cut more grass in less time.

● No. 400 is the top seller. It features a 34-hp (highest hp available), water-cooled gasoline engine.

● No. 340 is the second biggest seller. It features a 28.5-hp water-cooled diesel engine.

#### Exmark Manufacturing Co. Inc.

● 48-inch walk-behind S.P. used by lawn maintenance companies. Quality and price are the mower's biggest strengths.

#### Ford Tractor Operations

● Mid-mount mowers for compact utility tractors used for farm, home, and commercial purposes. These mowers constitute the majority of Ford's sales.

● Lawn and garden tractors.

#### The Grasshopper Co.

● Grasshopper model No. 1822 riding rotary mower with out-front rotary deck. Used in a variety of applications ranging from homeowners with larger lawns to the commercial/industrial market. The 1822 features out-front, PTO-powered mower deck, maneuverability of zero-turning radius, and compact design.

#### Gravely International, Inc.

● 5000 Series walk-behind tractors and mower attachments which provide versatility.

● Pro Line walk-behind mowers.

● Pro Master Line out-front mowers.

● 8000 Series riding tractors and mower attachments.

All products come with a two-year commercial warranty and five-year residential warranty.

#### Grazer Division, Willsey-D Inc.

● Grazer Grounds mowers which offers counter rotating steering.

#### Heckendorn Manufacturing

● Heckendorn produces two distinct mower lines. The original line has





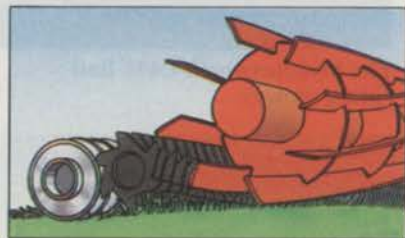
# Stroke for stroke, the best in the business.

## Greens King<sup>®</sup> IV Diesel.

Now, you can approach the green with the finest tournament-quality triplex greens mower and cut your fuel costs virtually in half. Because the innovative Jacobsen Greens King family introduces another industry first: *Diesel*.

The new 16½-hp. diesel Greens King IV provides more power for climbing and cutting. Plus, this diesel model has many standard features you'll only find as options elsewhere. Like full floating and pivoting reel units that steer through turns without scuffing or marking; full hydraulic drive with dynamic braking for greater control: just let up on the pedal to slow down.

The optional variable speed control lets you select the precise ground speed and frequency of cut, yet still allows full speed for transport.



By cutting horizontal runners and removing thatch, the patented Turf Groomer™ attachment creates faster, truer and healthier greens *without* lowering height of cut.

If you prefer a gas engine, both 14-hp. and 16-hp. models are available. Giving you the broadest selection of riding greens mowers in the industry. With more options, to help you meet your greens care needs more precisely.

Like the revolutionary, patented Turf Groomer™ attachment for faster, truer greens. *Without* lowering height of cut.

And, the unique *performance monitor* which digitally displays all speeds, including cutting frequency, so the operator can evaluate mowing performance, instantly.

What's more, every Greens King is backed by the most extensive support network in the industry. So, contact your Jacobsen distributor to arrange a free demonstration. And see for yourself why the Greens King family is the best in the business.

Lease and finance plans available. Jacobsen Division of Textron Inc., Racine, WI 53403. Telex: 264428.

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**JACOBSEN**  
**TEXTRON**

Jacobsen Division of Textron Inc.



The Mathews Co.'s Lawn Genie pickup mower.



The Grazer grounds mower.



F.D. Kees' 48-inch commercial mower.



Brouwer's model no. 376 triplex mower.



The Middlesworth C44F flail riding mower.



The Lesco 300 greensmower.

been manufactured for 35 years and has a reputation for durability and simplicity. The 36-inch and 88-inch riding rotary machines are the most popular. They are used by cemeteries, park departments, schools, and cities.

● The new line offers a twin hydrostatic out-front design rotary mower which Heckendorn has manufactured for four years. It can have a deck of up to 98 inches in width that will pick up cut grass. While it can be sold to the same customers as the other line, it is best suited for the landscape contractor. Its highly maneuverable and flexible deck allows the operator to alternate from 91 inches to 55 inches without interruption of mowing.

#### Ingersoll Equipment Co., Inc.

● Ingersoll hydraulic drive (Hydriv) garden tractors in 10- through 18-hp. With mowers ranging in width from 38-60 inches, and a wide assortment of attachments, the tractors can be used for a large variety of tasks. They comprise a substantial portion of Ingersoll's sales and are recognized industry-wide for their lasting value.

#### Jacobsen, Division of Textron Inc.

● Greens King IV diesel—the industry's first diesel-powered riding greens mower.

● Turf Groomer—a revolutionary greens grooming tool which gives faster, truer, healthier greens without lowering the height of cut.

● G-4x4—4-wheel drive, 4-wheel steer turf tractor for superior hillside turf maintenance.

● HR-15—for high capacity mowing with rugged hydraulic mowing, nearly 16-foot swath.

Jacobsen is among the industry leaders in fine-cutting reel mowers; both walking and riding greens-mowers; self-propelled and tow-behind reel gang mowers for fairways, roughs, and other large grass areas; and out-front fine-cut flail mowers.

#### F.D. Kees Manufacturing Co.

● 36-inch and 48-inch commercial mowers used by the commercial landscape and golf course industry. The strengths: quality, convenience, price.

#### Kinco Manufacturing

● Sickle bar mower model KMG-38 used for mowing weeds, brush, small saplings. Kinco has a great deal of expertise in building this type of mower, dating back to the early '30s.

#### Kubota Tractor Corp.

● F2000 4WD 60-inch front mower for commercial use. This is a diesel engine-driven mower providing more reliable rugging power. It has a shaft-driven mechanism to secure cutting performance (not V-belt-driven), and features four-wheel drive.

#### Lesco, Inc.

● The Lesco 300 Greensmower, a tri-





**"I have only eighteen concerns when selecting my greensmowers."**

*Peter Smith, Superintendent  
Shinnecock Hills Golf Club*

"When you're hosting the U.S. Open, the quality of your greens is going to be evaluated by the best golfers in the world and a national television audience. That's why I use only Buntun mowers to maintain my greens here at Shinnecock Hills," says Golf Course Superintendent Peter Smith.

Since he discovered Buntun mowers, Smith has purchased eight greensmowers and two teemowers. Here are some of his comments.

**On the tournament:**

"For three years before the 1986 Open I mowed my greens at 5/32" with 22" Buntun walk-behinds. For the tournament I mowed at 1/8". The Buntun doesn't have a floating head so I get a true 1/8" cut once I set and lock in the height. With the new Buntun tournament knife I can easily get down to 7/64" without digging into the green."

**On Buntun features:**

"The powered rotary brush is a great feature. It stands the grass up before it's cut to control grain and

eliminate runners. I use grooved rollers for closer, more accurate cuts and verticut attachments for thatching."

"The solid aluminum drive rollers on the Buntun machines give me firmer greens without compaction. They cut straight, since both rollers are powered, and I've never had a problem with the engines."

**On teemowers:**

"My tees concern me as much as my greens. With Buntun I get a striped, walk-behind look, plus the efficiency of a 26" mower. After all, those TV cameras focus on the tees almost as much as the greens. They have to be in top condition."

For at least eighteen more good reasons to use Buntun, write or call for our new literature and the name of your Buntun distributor.

**BUNTON CO.**

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Louisville, KY 40232 USA  
Phone 502/966-0550 • Telex 204-340



plex reel mower used primarily for greens and increasingly for mowing close-cut fairways. The 300 greens-mower's strength lies in its unique features, including an 18-hp twin cylinder engine, hydraulic "power" steering, and an improved filtration system. Additional strengths include the use of only the finest components and dedication to quality and service support. And by marketing direct to the end user, Lesco is able to offer the product at a competitive price.

**Locke Manufacturing Inc.**

● Model No. 6, a 70-inch triplex lawn mower with five blades used in commercial applications. Model No. 10, which is the same as a No. 6, but has a reverse transmission. This mower has been Locke's backbone in sales for more than 55 years. The average life is 20-25 years, an excellent value the customer enjoys.

**Mathews Company**

● M-C Lawn Genie flail pickup mower offers increased safety for both the operator and bystanders. It is used in a multitude of applications for homeowners, estates, parks, schools, municipalities, golf courses, and professional lawn care operators. It has consistently produced satisfactory growth not only in domestic sales, but

also in foreign sales since its development some 16 years ago.

**Middlesworth Eng. & Mfg.**

● C40 rotary riding mower with 40-inch cut, is the size mower which fits more people's needs and requirements.

● C44F flail riding mower with 44-inch cut is designed for lawn care and is safer than rotaries.

**National Mower Co.**

● 84-inch National triplex mower. It exemplifies basic simplicity and rugged construction. It has sold for 60 years.

**Ransomes Inc.**

● 21-inch heavy duty rotary mower.  
● Mid-size mowers (34- to 54-inches). Both types of mowers are used in the landscape industry. They are of heavy duty quality designed specifically for commercial use. Their superior quality has withstood the test of time.

**Scag Power Equipment**

● SW48-13K, a 48-inch belt-driven walk-behind. Scag introduced it in April and it has gone "hog wild" ever since. The SW48-13K is maneuverable and price competitive.

● ST18B, 61-inch rider used for large capacity cutting areas. Offers maneuverability, high productivity, and an exceptionally good cut.

**Sensation, Division of Gilson Bros. Co.**

● Sensation walk-behind mowers. These are heavy duty commercial mowers used extensively by lawn care professionals for small areas and trimming after larger riding mowers. Heavy cast Sensation decks are the standard designed for the commercial lawn care industry. The strength and reliability offered makes the mowers well-suited for the professional with reliable, dependable service.

**Simplicity**

● New Sunstar Series Garden Tractors feature shaft drive to 42-, 48-, and 60-inch mowers, state-of-the-art electronics, two range transaxle, and 18- to 20-hp engines. They come with a large variety of attachments and accessories such as front-end loaders, tiller plows, snowthrowers, dozer blades, and many other work saving devices.

**Snapper Power Equipment**

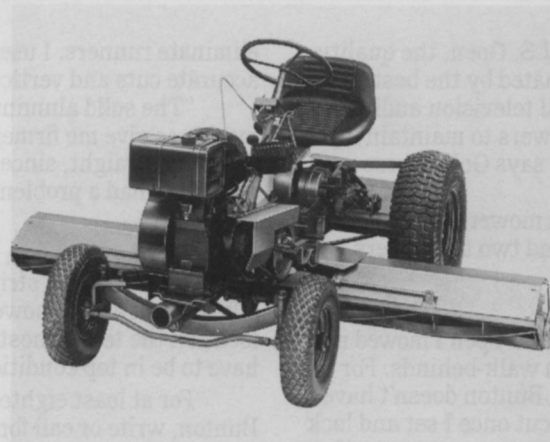
● Rear-engine riding mowers.  
● Lawn tractors.  
● Commercial walk mowers. All three lines are readily accepted by commercial users.

**Turner International Ltd.**

● Turner Hydramower, a rear-mounted boom mower reaching 17-, 19-or 25-ft., to the left and right hand



The Turner rear-mounted boom mower.



National Mower's 84-inch triplex mower.



The Exmark 48-inch commercial mower.



The Ford lawn and garden tractor, model No. LGT18H.



Simplicity's 18-hp SunStar series garden tractor.



Woods' tractor-powered grass mower.





Frank J. McDonald, Director of Marketing  
Cushman Division, Outboard Marine Corporation  
Lincoln, Nebraska

# CUSHMAN®

*"Few things in life last as long and work as hard to make your job more productive and cost efficient."*

Frank J. McDonald

An investment in Cushman® turf vehicles and attachments is an investment in a true turf care "working system".

Team up the Cushman Turf-Truckster™ vehicle with one or more of a half-dozen specialized turf care attachments, and you can aerate large or small areas, haul equipment and materials, dump sand, spray, seed or top dress. And, switch from one job to another quickly with the Cushman exclusive "pin-disconnect" system.

The Cushman Turf-Truckster™ vehicle offers plenty of power with the OMC-built 22-hp engine. Choice of 3-wheel or 4-wheel models. And a ground-speed governor control for uniform application over uneven terrain. The Turf-Truckster also rides over fine turf areas without damage to the turf.

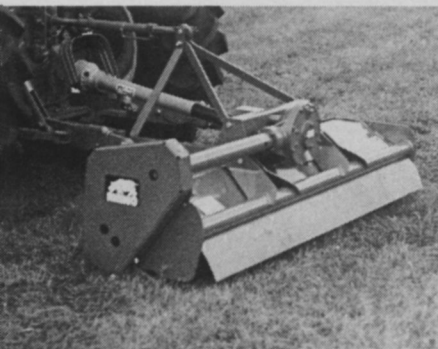
No single turf vehicle lets you accomplish so much day after day, year after year.

For more information, and a free full line brochure write:

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Frank McDonald, Director  
of Marketing, OMC Lincoln  
P.O. Box 82409, 5302 Cushman,  
Lincoln, NE 68501 or call toll-  
free: 1-800-228-4444.

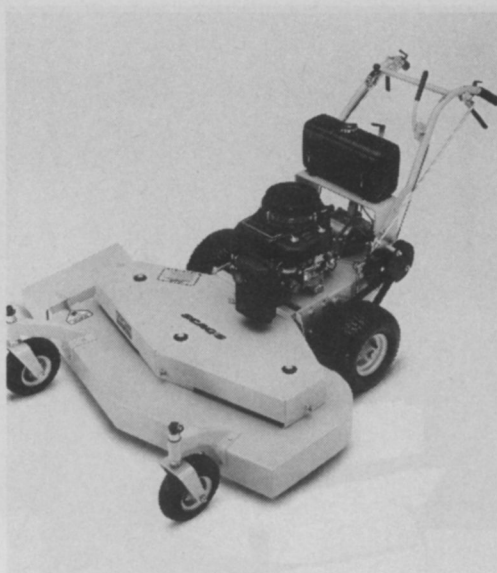


"OUR REPUTATION IS BUILT TO LAST"



The Alamo Group's Rhino flail mower.

Scag's mid-size walk-behind mower.



The Bunton 36-inch rotary mower.



Yazoo's Eagle II, a 42-inch, front-cut mower.



Excel's Hustler model No. 340 72-inch out-front rotary mower.



Dandl's Industrial mower.

side of the tractor, hydraulically swinging similar to a backhoe, used for heavy mowing of trees, brush, and grass. The mower's unique design dramatically reduces "deadheading" time spent reversing or travelling back to make a second cut. The mower can be completely removed or fitted within 10 minutes.

**Vrismo Manufacturing, Inc.**

● **Mighty Max**, front-mounted flail for John Deere, Toro, Hustler, Ransomes, Turf Blazer, and Cushman. It can be used for mowing, thatching, and breaking up aeration cores. Jacobsen offers the only other front-mounted flail. Rotaries cannot be used for thatching and breaking up cores.

**Walker Mfg. Company**

● **Walker Mower M36-42 or C36-54** is a mid-size (36-inch or 42-inch) commercial grade riding mower used for

mowing and trimming small to medium size landscaped turf areas where maneuverability and grass catching are required for efficient performance of the job. The requirement for a mid-size mower is an emerging segment of the commercial turf care business due to a trend towards use of more small green areas around offices, condominiums, resorts, and the trend towards more residential commercial mowing.

**Wheel Horse Products Inc.**

● **300/400 Series Tractors**, lawn & garden tractors used for mowing, tilling, grading, and snow removal. The tractors have been the strength of Wheel Horse with their durability and dependability. The cast iron transaxle and angle iron frame give years of dependable service even under the day to day stress of heavy duty applications.

● **700 Series Mowing Machines**, commercial mowers for mowing. A new addition to this product lineup, the 700 Series Commercial Mowing Machines. Its speed combined with zero turning radius maneuverability, make it one of the most efficient/cost saving buys on the market.

**Woods, Division of Hesston**

● **Rotary, tractor-powered grass mowers** with a cutting swath ranging from 3.5 to 20 ft. The product is Woods' strength based on strong sales in the turf market.

**Yazoo Manufacturing**

● **Walk-behind Big Wheel mowers** which have been manufactured since 1945.

● **Industrial three-wheel front-cut tractors.**

● **Consumer riders.** The three products constitute 90 percent of sales. **WT&T**



# INTRODUCING SCAG'S FULL LINE OF COST CUTTERS.

Scag offers a full line of money-saving, low-maintenance commercial riders and walkers tough enough to handle all your jobs. Not only do Scag mowers cost up to 25% less than comparable models, their easy, self-service design allows for on-site tire changes, replacement of spindle bearings and other repairs at a fraction of the usual time and expense.

What's more, when you save with Scag you don't sacrifice performance because Scag's machines cut up to 30% faster than competi-

tive brands. And, Scag mowers are built from the highest quality parts and materials, like over-size cast iron pulleys, heavy-duty spindle and rugged pneumatic caster wheels. So, they'll outlast as well as outperform ordinary mowers.

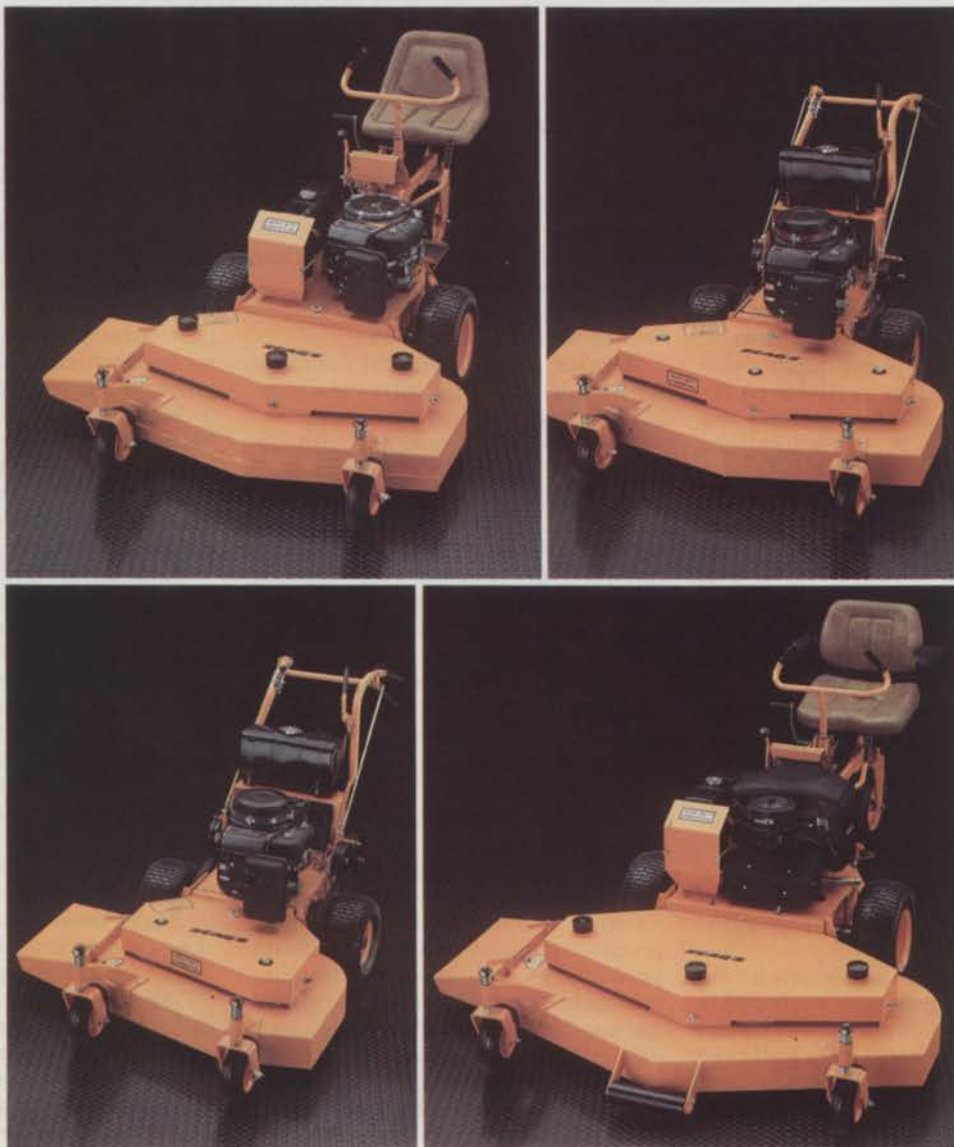
Boost your bottom line with Scag's heavy-duty riders and walkers from 8- to 18-HP models with 32 to 61 inch cutting widths. See for yourself why no mower is easier to use than Scag.

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Waukesha, WI 53186  
Phone: (414) 544-4090

## SCAG

POWER EQUIPMENT

**IT SIMPLY COSTS LESS. AND CUTS MORE.**



# INTO THE FUTURE

Here's what to expect from major mower manufacturers in the future.

**Alamo Group** is looking at hydraulically powered mowers which would cut down on the wear of the mower, making the upkeep cost lower. The company also is investigating belly-mount units which would fit underneath a tractor and self-powered small mowers which would hook behind an all-terrain or recreational vehicle and be ideal for smaller mowing areas.

**Ariens** will broaden the WBLM line with more models.

**Bomford & Evershed** is hard at work building "better and cheaper flail mowers."

**Brouwer** will market two new 5-gang tractor mid-mounted mowers in 1987.

**Bunton** has just introduced a thatcher attachment for the rotary mowers, which allows the operator to dethatch. Also, a 12.5-hp Kawasaki engine or an 11-hp overhead valve Honda engine will be available for the rotary mowers. Within the next few months, Bunton will start marketing a triplex greensmower.

**Cushman Ryan** will offer a wider range of attachments for the commercial mowing market including thatcher attachments, snow and dozer blade, leaf blower, reel mower attachment, flail mowers, aerator attachment, and additional size decks to appeal to all potential users.

Cushman's newest product on the market is the Model 807 Cushman Front Line Diesel with 3-cylinder, 21.5-hp Kubota engine which features a 4-wheel tractor standard, extra wide tires, and power steering.

**Dandl Manufacturing** has plans for a new reel with both coarse and fine cut knives for the Expando and Industrial mowers.

**Deere** has introduced a new line of 12 golf and turf products. Included in that line will be 3- and 5-reel tractor mounted and 3- and 5-reel pull-type mowers.

**Excel** "feels good" with where the product line is right now. They are,

however, looking at additional engine options and attachments which would make the tractors more flexible. The availability of new cutting widths is another possibility for Excel in the future.

**Ford Tractor** plans to redesign "certain models." Available to the public in the spring of 1987 will be a new diesel-powered garden tractor mower.

**Grasshopper** is completing the conversion to a new powder-coated paint system. This state-of-the-art process gives an unmatched appearance as well as long-lived durability. Also in the plans is a water-cooled, gas engine model.

**Gravelly** plans to market a new 36-insert multi-mode mower for their 5000 series line (mower has side discharge, rear discharge, and grass collection all in one).

**Grazer** will implement complete hydraulic drive and introduce commercial walk-behind mowers.

**Heckendorn** is working with liquid-cooled gas and diesel engines, as well as hydrostatic drives for its original line of mowers. The new line will offer a deck which allows the user to tailor it to fit his needs with respect to size and capability. Options such as a snow thrower and rotary broom also will be available.

**Ingersoll Equipment Co., Inc.** has released five hydraulically powered attachments in the last three years and is continually striving to add to the versatility of the only hydraulic drive tractor manufactured for lawn and garden use.

**Jacobsen** maintains a constant, strong engineering research and development and product refinement program: improvements to existing products, as well as newly-designed products are introduced regularly. Among Jacobsen's new products are new triplex mowers and a hydraulic drive 5-gang tow-behind reel mower.

**Kinco Manufacturing** is getting away from castings and stampings and

looking to forgings in some critical areas to ensure the strength and longevity of products like a new walk-behind front-throw reel mower.

**Kubota** plans to introduce a 72-inch mower deck and 48-inch mower deck models. Also in the works is a radio control mower with all four wheel steering.

**Lesco** has introduced the "500" Greensmower, which will be available next spring. The "500" uses the basic design of the "300." with two cutting units added. This gives a 100-inch cutting width and offers the finest cut available for fairway mowing. An out-front rotary and a line of walk-behind rotaries will be available within two years.

**Locke** doesn't plan modifications of existing products, but will introduce two new products: an 18-inch rotary trimmer for commercial use only and a 70-inch triplex hydrostatic model.

**Mathews Co.** will broaden its established lines with more models, particularly flail-type mowers and mowers which reduce time and manpower requirements.

**Middlesworth Engineering & Manufacturing** is designing a 54-inch mower for a line that already runs from 40- to 72-inch cut and adding a grass catcher to the C40R rotary riding mower.

**National Mower** says changes in its mowers are "always under study." They will introduce a 76-inch triplex to the market in '87.

**Ransomes** will make modifications to improve the user's "down time" and cost of operations. New products include: 61-inch riding rotary with several engine options (low cost) for the landscape industry; narrow transport 71-inch triplex for golf course and municipality use; and a triplex greensmower for golf course use.

**Scag Power Equipment** will offer the new engine options of a Kohler 18-hp Kawasaki 17-hp engine for their ST18B rider. They also plan to introduce 12-hp brakes on the mid-size walk-behinds and riders.

**Sensation, Division of Gilson Bros.** has plans for Honda engine options on 21-inch push mowers at 4- and 5.5-hp,



# BROUWER MOWERS



7-GANG FAIRWAY  
HYD. LIFT MOWER

- Quality
- Reliability
- Service

*tournament tough . . . market proven*

THE golf course mower designed specifically to give the precision quality cut that is demanded by the top superintendents. A golf course reputation can be made or lost by word-of-mouth, make sure that the story about your fairways is nothing but praise, by grooming with a Brouwer fairway mower. Check the specifications and the long list of outstanding features that include: Unique floating head design that allows the reels to follow the rolling contours; The special design that permits mowing on slopes without side-slip; The proven mechanical drive, requires less H.P. and fuel and reduces weight for minimum compaction; Front and rear rollers and anti-skid shoes reduce scalping; A high strength structural steel frame for extra durability and lightness . . . These features and many more, plus important options, add up to a superb mower that will outperform others through any conditions cut after cut, season after season.



BROUWER TRIPLEX-376

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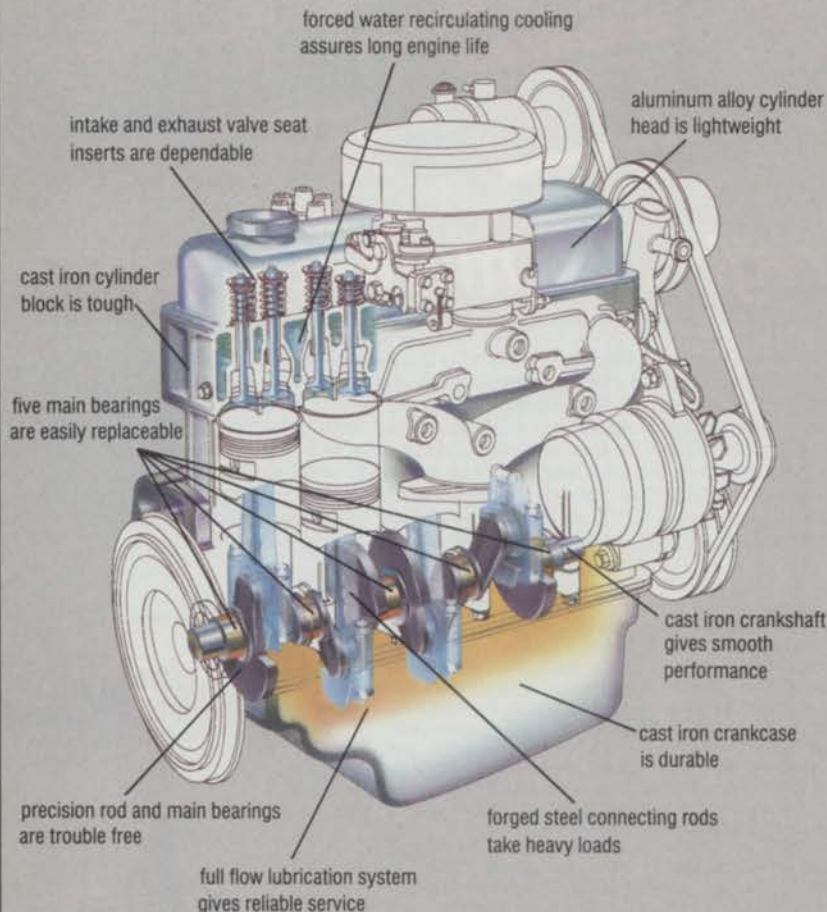
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for two riding mowers with out-front 61-inch and 48-inch cutting decks, three-wheeled configuration, and good maneuverability.

**Simplicity** promises larger mowing decks for both belly-mount and front-mount mowers along with lower cost and better performing grass collection systems.

**Snapper** will introduce new models designed for the commercial market, including walk-behinds.

**Toro** has just introduced a commercial 112-inch walk power mower. It is the fourth model in the company's

---

*Snapper will introduce new models designed for the commercial market, including walk-behinds.*

---

line of mid-size commercial rotary mowers. The mower features a powerful 4-cycle, 12.5 hp Kawasaki engine, making it ideal for heavy cutting situations. It is compatible with Toro's three floating decks (36, 44, and 52 inches).

**Turner International Ltd.** is constantly evaluating new methods and modifications which will increase output, with safety being the highest priority.

**Vrismo** will introduce a complete line of updated three-point flails for the turf market plus a new flail knife for a finer cut.

**Walker** plans to introduce a 16-hp model "C" with long life drive train components. The company will continue to refine the existing model, particularly in boosting performance of the grass handling system.

**Wheel Horse** will introduce a commercial or extra heavy duty garden tractor with a "beefed up" mowing deck plus a commercial rear engine rider.

**Woods, Division of Hesston** has an ongoing program for improving existing mower products in performance, safety, and cost competitiveness. The company has no plans at the moment for new mower products.

**Yazoo** is constantly updating its mowers particularly with safety features and improved appearance. They have introduced two new 42-inch front-cut mowers, the Eagle I for consumer use and the Eagle II for commercial use. Both mowers have hydrostatic drive. **WT&T**



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Columbia Car



Yamaha Motors

# THE GOLF CAR GAME

An improving economy and the maturing 'Baby Boomer' generation create a growing need for golf cars. The industry has responded.

**T**he game continues to grow, but the players leave.

Sale of golf cars is rising at a 7-8 percent clip per year. Two years ago, there were seven manufacturers. Alas, today, there are but five.

"When they first came out, everybody built them," observes Eric Sauvey, president of Columbia Car. "But, like most markets, as it matured, fewer people manufactured them."

The players: Columbia, Club Car, E-Z-Go, Melex USA, and Yamaha.

Estimates on market growth range from 6 percent to 10 percent annually on 600,000 total units now in use. Areas of growth include industrial use, individual use, and golf course use.

More large businesses are using golf cars than ever before.

"There's a bigger emphasis than before on industrial uses," notes Sauvey, "but it still hasn't been exploited as much as it can be."

And more Sun Belt residents are purchasing golf cars through the dealer-distributor network than ever before—especially in retirement communities.

"We have a lot of retired people using them as personal vehicles," says



Club Car



E-Z-Go



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## U.S. GOLF CAR POPULARITY, 1986

	TYPES OF COURSES				
	Resorts	Private clubs	Daily fee	Municipal	Executive, par 3
Facilities with golf cars	96%	97%	94%	94%	96%
Cars per 18 holes	70	50	48	38	27
Average age in years of cars	3.5	3.6	4.2	3.4	4.0
Inventory value (\$1,000s)	67.5	50.0	30.0	40.0	30.0

Courtesy of The National Golf Foundation

Cary Rivers, national sales manager for Club Car. "These are the vehicles that people like to dress up a little bit with optional features."

And the golf course market? With more golf courses, resorts, and country clubs being built as the economy

bounds, more golf cars are needed.

"Golf courses are also finding more applications for their golf cars," says Rivers.

"We've seen a slight trend in personal golf car use, but there's been a particular increase in the industrial

vehicle market," says Bryan Taylor, marketing representative for Melex USA. "I believe we are the only manufacturer who can convert its golf car into a utility vehicle."

Melex USA has begun a stronger

*With more golf courses, resorts & country clubs, more golf cars are needed.*

marketing campaign this year with emphasis on its conversion kits which attach to either of its models. The kits will convert the car into a four-passenger vehicle, a platform without sides, a platform with steel sides, or a platform with wooden sides.

With post-war Baby Boomers now reaching middle age, more people than ever will be playing golf in the coming years. And, in this age of affluence, more of those Baby Boomers will be reaching early retirement age during the early part of the next century. The result? A larger demand for golf cars.

And the golf car industry appears ready to meet that demand. **WT&T**

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## GOLF CAR GUIDE

Manufacturer	Model	Engine	Payload	Notes
<b>Club Car</b> P.O. Box 4658 Augusta, GA 30907 (404) 863-3000	DS Electric	electric	750 lbs.	4-wheel
	DS Gas	4-cycle	750 lbs.	4-wheel
	DS Villager	electric	1,000 lbs.	4-wheel
	DS Villager	4-cycle	1,000 lbs.	4-wheel
	DS Carryall I	electric	1,000 lbs.	4-wheel
	DS Carryall I	4-cycle	1,000 lbs.	4-wheel
<b>Columbia Car</b> P.O. Box 1 Deerfield, WI 53531 (608) 764-5474	G3T	2-cycle	615 lbs.	tiller, 3-wheel
	G3S	2-cycle	615 lbs.	steer, 3-wheel
	E3T	electric	523 lbs.	tiller, 3-wheel
	E3S	electric	523 lbs.	steer, 3-wheel
	G4S	2-cycle	716 lbs.	4-wheel
	E4S	electric	716 lbs.	4-wheel
<b>E-Z-Go</b> P.O. Box 388 Augusta, GA 30913 (404) 798-4311	X440	electric	500 lbs.	3-wheel
	X444	electric	500 lbs.	4-wheel
	GX440	2-cycle	500 lbs.	3-wheel
	GX444	2-cycle	500 lbs.	4-wheel
<b>Melex USA</b> 1201 Front St. Raleigh, NC 27609 (919) 828-7645	152	electric	500 lbs.	3-wheel
	252	electric	500 lbs.	4-wheel
<b>Yamaha Motors</b> 6555 Katella Ave. Cypress, CA 90630 (714) 761-7300	G1-AM5	gas	1,000 lbs.	4-wheel
	G1-EM5	electric	1,000 lbs.	4-wheel
	G2-A5	4-cycle	1,000 lbs.	4-wheel
	G2-E5	electric	1,000 lbs.	4-wheel
	Sun Classic	electric	1,000 lbs.	4-wheel
	Sun Classic	gas	1,000 lbs.	4-wheel



Meet the E-Z-GO work force. Tough guys who work down to dusk and never take a break.

Built to E-Z-GO's demanding standards, you can expect years of durable performance from these 3 and 4-wheel, gas or electric-powered turf vehicles. Plus lower maintenance costs and little to no downtime.

For every job you've got, there's an E-Z-GO designed specifically to handle it—quietly, efficiently and with the least amount of labor. With carrying capacities up to 1,500 pounds, a complete range of trailers, and adaptability to virtually any accessory, they're a team of superbly versatile workers.

**E-Z-GO. Nobody builds them better.**

# KNOW WHEN TO QUIT.



# THE LAWN CARE CRISES

Chemical lawn care companies face pressure from media and law-makers. But their friendly insurance agent might pose the most urgent problem.

**B**ill Schaeck's Chem-Green business was up for sale. The reason? His insurance premiums were about to triple.

George Meeley of Chem-Turf in Anaheim, Calif., bought Chem-Green—Meeley's insurance policy doesn't expire for another year.

Meeley hasn't decided what he'll do if his premiums drastically increase.

When the problem crosses his mind, he slowly shakes his head and whispers, "I just don't know."

That is the state of the lawn care

industry as it looks toward the 1987 season: a collective shaking of heads as lawn care operators face crisis upon crisis.

*Lawn Care Industry* magazine's annual survey revealed that 89 percent of the nation's LCOs feel insurance is a "major concern." Eighty percent of the respondents reported an increase in premiums for the current year.

According to Jim Leatzow of Financial Guardian Insurance, Lombard, Ill., the trend will continue for two or three more years.

And that's just half the problem. The other half is that pollution liability clauses are being excluded in 1987 from general liability policies, according to the Insurance Services Organization.

"Pollution liability is not available, so people are being more careful and thinking, 'if anything happens, I just close up shop,'" observes Jim Brooks, executive vice-president of the Professional Lawn Care Association of America.

Other problems being encountered by the industry include biased reports from media giants CBS-TV, ABC-TV, and *Home Mechanix* magazine; and new sign-posting laws in various communities.

The troubles are being felt in all quarters. ChemLawn, the largest chemical lawn care company in the country, lost 28,000 customers during its fiscal third quarter. A

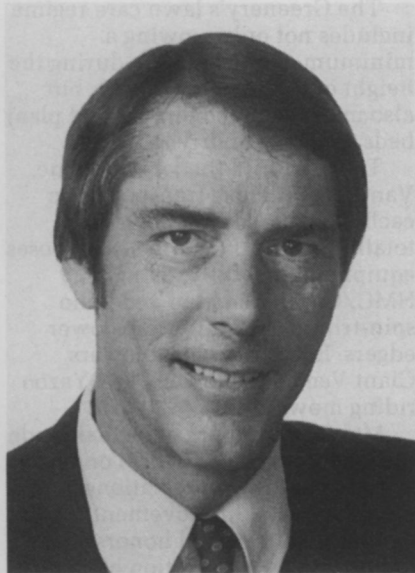
## In 1986, what do you predict your expenditures will be for:

Chemicals, supplies	% Sample purchasing	Average per purchaser	Projection to LCI readership	% Change since 1985
Granular fertilizer	78	\$12,708	\$113.0 million	+18.5
Pre-emergence herbicides	69	8,608	67.9 million	+36
Liquid fertilizer	35	12,926	51.7 million	+16.8
Insecticides	73	4,844	40.5 million	+27
Grass seed	69	3,909	30.8 million	+19
Post-emergence herbicides	69	3,605	28.5 million	+20
Soil amendments	30	2,860	9.9 million	+4
Fungicides	47	1,810	9.7 million	-14
Plant growth regulators	17	670	1.3 million	+28
<b>Equipment</b>				
Tractors	20	14,264	32.6 million	+22
Walk-behind mowers	42	3,963	19.0 million	+27
Riding mowers	13	10,687	15.9 million	-4
Spray tanks	27	3,940	12.2 million	-50
Sprays, pumps, hoses, etc.	47	2,103	11.3 million	-21
Irrigation equipment	12	5,651	7.7 million	-200
Aeration equipment	30	1,958	6.7 million	-3
String trimmers	35	1,138	4.5 million	+20
Tree care equipment	27	1,403	4.3 million	-86
Spreaders	46	538	2.8 million	-187
<b>Predicted totals:</b>			<b>470.3 million</b>	<b>+11.65</b>





Chemlawn president Jack Van Fossen says "there is still a large potential for lawn care service" despite recent problems.



Jim Brooks, president of the PLCAA, says the lawn care industry will have to "stand up and fight. It's just never done that before."

press release attributed the loss, at least partially, to "negative, inaccurate, and incomplete media stories about the safety of lawn care products, both on national and selected local television and in the press." The negative coverage, the release continued, caused an increase in cancellations and a decrease in new customer inquiries.

"We believe the slowdown is a reflection of shifts in both consumer

attitudes and spending patterns," says ChemLawn chairman/CEO Jack Van Fossen. "There is still a large potential for lawn care service. But the rapidly changing marketplace requires greater emphasis on quality performance and value added to meet consumer needs."

ChemLawn, too, announced this year that it would post a sign on every lawn after chemical treatments. Other LCOs are slowly, hesitantly following suit.

"We'll get through it all, but there are a lot of potholes," says Brooks. "The industry will have to stand up and fight. It's just never done that before."

Despite all the problems, the

industry continues to thrive.

According to the *Lawn Care Industry* report, chemical lawn care revenues grew from \$832 million in 1984 to \$932 million in 1985. Median growth was 20 percent per company.

Overall, purchases of chemicals, seed and equipment were predicted to increase 11.65 percent this year with dramatic increases in the purchases of pre-emergence herbicides and plant growth regulators (see chart).

In 1984, the average LCI reader had 724 lawn care accounts. That number increased to 1068 (32 percent) in 1985, yet another indication that the industry continues to be a viable—and profitable—one. **WT&T**

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## LAWN CARE... CAREFULLY

Hilton Head's veteran landscape management company exercises extra care when applying chemicals to the island's fragile environs.

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It's a resort...a retreat...a retirement community.

Hilton Head Island is many things to many people, but its main attraction is the serenity of its ocean-surrounded landscapes.

Hilton Head has 10 plantations, each with homes, villas, and commercial properties which must follow strict architectural guidelines. The landscaping throughout the island follows a similar conservative pattern, though it rarely wavers from Hilton Head's "paradise island" blueprint.

Maintaining that beauty has been anything but serene for the island's lawn care and landscape professionals. Three harsh winters, including snow on one occasion, and the severe drought last summer have made the job a challenge to even the island's best landscape managers.

Only three chemical lawn care companies work on Hilton Head. Because of the wealth on the island, most homeowners can afford to hire landscape contractors for combined turf and landscape care.

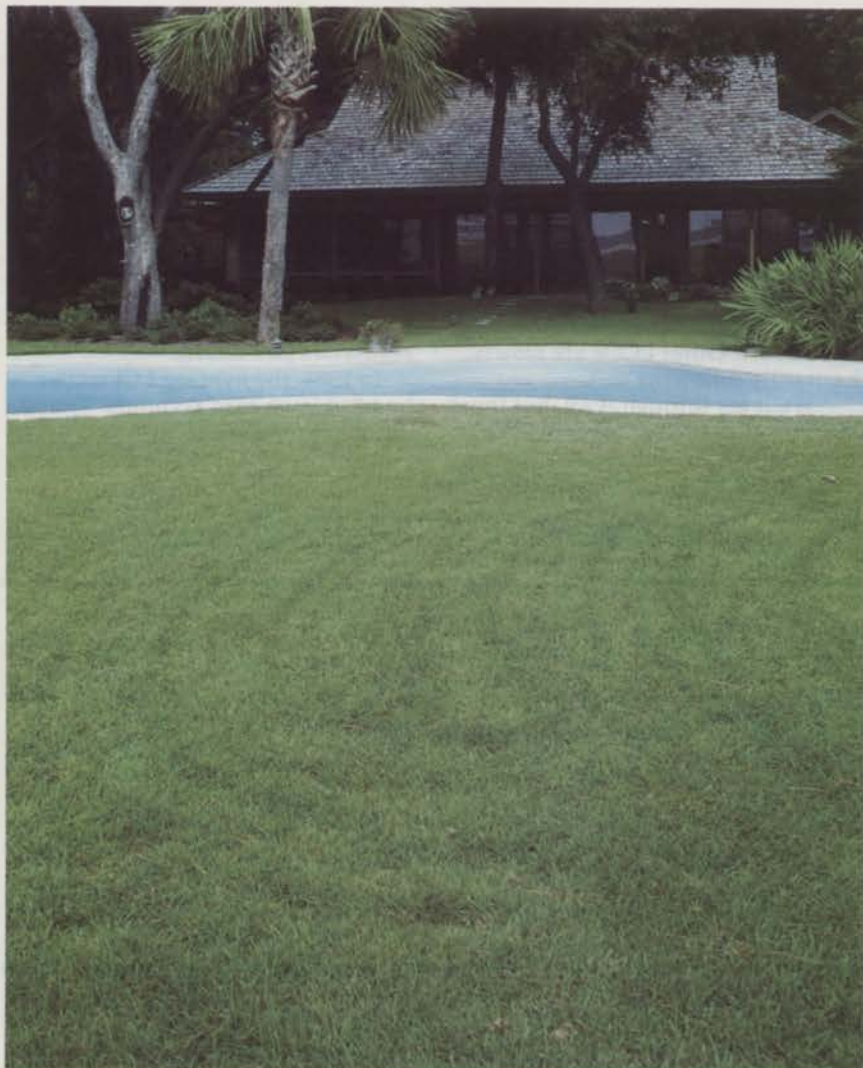
### The award-winner

The Greenery, an award-winning design/construction/maintenance landscape company, handles about 300 residential and commercial maintenance accounts on Hilton Head. Founded by Berry Edwards in 1973, the Greenery is one of the oldest landscape companies on the island.

With age comes experience and a lawn care philosophy that differs from the newer, strictly chemical lawn care companies.

"Some of the turf/lawn care companies have a program to come in and spray whether it's needed or not," says Tom Van Hise, the Greenery's general manager for maintenance. "They may provide a better product in the long run, but with these recent comments on chemicals, our philosophy will be safer."

The island is concerned with chemicals running into the marshes or ocean and damaging the fish. But most of the controversy focuses on



The Greenery's lawn care regime involves not only mowing the lawn, but edging around flower beds and pools.

the island's 20 golf courses, since they generally use more chemicals than the landscape companies.

The Greenery's program includes pre-emergence herbicides used throughout the growing season. Fungicides and insecticides are applied in the spring, with follow-up treatments only when necessary.

Fertilization works the same way. Each spring, the Greenery applies a slow release, 15-0-15 fertilizer and repeats applications as needed.

Turf on the island is primarily centipede grass, and is almost always sodded, rather than seeded. "Centipede grass does not require as much fertilizer," Van Hise says. "It's more drought resistant than either St. Augustine or bermudagrass, and it's come back after three winters of cold weather."

### Drought duress

Although the harsh winter weather damaged many plant materials on the island, the drought caused more trouble for lawn care specialists. With only about a half inch of rainfall in three months, lawns needed extra irrigation. "One unusual problem was that we used a lot more herbicides this year because a lot washed off with the irrigation," Van Hise says.

His crews had to irrigate as often as seven days a week in some cases. Several customers complained about high water bills. During the peak of the drought, however, irrigation was cut back to twice a week in an effort to conserve water.

Van Hise also blames the drought for the severe insect and fungus infestations this year. "The drought stressed the plants, making the



Maintenance general manager Tom Van Hise notes that the Greenery sprays insecticides and fungicides in the spring, then follows up only as needed.

infestations rampant," he says. "It's much worse this year than in past years."

The Greenery's lawn care regime includes not only mowing a minimum of once a week during the height of the growing season, but also mechanical edging around plant beds, walks, and drives.

To make sure the jobs get done, Van Hise provides transportation each morning for his 12 crews, totalling 34 workers. He also chooses equipment carefully, using only HMC/Green Machine and Echo spin-trimmers, Trail-Mate power edgers, Echo backpack blowers, Giant Vac push blowers, and Yazoo riding mowers.

Making that extra effort has made the Greenery the only firm on the island to earn several National Environmental Improvement Awards, and national honors from the American Association of Nurserymen. Some of the awards were for architectural design and construction, including building decks, fountains, and formal gardens.

In fact, maintenance is only a small part of the Greenery's operations. But it's the part which is visible when the island's population swells from about 30,000 to 70,000 each summer.

And, as long as Hilton Head's erratic weather continues, lawn and landscape maintenance will also be one of the Greenery's biggest challenges. **WT&T**

—Heide Aungst



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areas. Plus a full-pressure lubrication system to keep them running cooler for longer engine life.

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**2 YEAR WARRANTY**



## LIQUI-LAWN KEEPS ROLLING

Like the neighboring mountains near Lewiston, Idaho, Liqui-Lawn's profit line is rock-like. It's also painted black.

**T**he banks of the Snake River lie just across the street and as the river rolls, so does Duane Saxton's Liqui-Lawn operation.

"Phenomenal" growth has been followed by some "mediocre" growth years of 20 to 30 percent for the Lewiston, Idaho, lawn care operator.

He combines a five-year-old chemical lawn care business with the company foundation—a pest control operation dating to 1947.

"Pest control is a far slower growth-type business. Lawn care has proven to be the fast-growth industry," says Saxton.

The pest control operation accounts for two-thirds of company revenues, he notes, but that figure is shrinking.

He entered the lawn care industry through granular application then switched to chemicals three years ago. In wide-open Lewiston, where the average lawn runs 7,000 sq. ft., the switch to efficient chemical applications has worked.

Saxton's three state-licensed applicators roam the Snake and Salmon River Valleys around Lewiston and neighboring Clarkston, Wash., where some homes feature 30,000 sq. ft. of turf. (Explorers Lewis and Clark are said to have set up camp in the area during their excursions to the Pacific Northwest in the late 1700s and early 1800s.)

The Liqui-Lawn lawn care program consists of five applications every 6-8 weeks, beginning in mid-March. Special care is given to billbug control and to decreasing the soil's alkalinity to a more neutral 6.5 or 7 with a granular sulfur application in the fall.

Liqui-Lawn was the first chemical lawn care company in the area and remains the largest. Two competitors



**Owner Duane Saxton (right) and general manager Dennis Spickler have seen five-year-old Liqui-Lawn grow at least 20 percent each year.**

have sprung up but neither poses a threat, says Saxton.

### No maintenance for him

While Saxton isn't feeling much competition in chemical application, he says he would feel it in the maintenance end. That's why he stays away.

"We've decided not to get into maintenance because it's hard to compete with the Sunday guy with one truck and a low overhead," he notes.

Instead, he looks to other areas for growth and expansion. One such area is Walla Walla, Wash., some 70 miles to the west. (One wry Lewistonian noted the area's founding fathers liked the area so much they decided to name the town twice.)

Liqui-Lawn has an office there, run by general manager Dennis Spickler, that has demonstrated quiet growth in its two years.

Within a 15-mile radius of the Lewiston and Walla Walla offices, there are 100,000 people. That's more than enough for Saxton and his 10 year-round employees.

"The Lewiston area is a good market because more people are increasing their recreational expenditure levels which means they are hiring more services, including lawn care," says Saxton.

One problem is a potential lack of

water. The area receives just a scant 13 inches of rain a year. During an abnormally dry year, homeowners reduce lawn watering, making Liqui-Lawn's job no easier.

In some cases, Clarkston residents flat-out refuse to water lawns because of high water rates, says Saxton.

### Even higher rates

While residents wrestle with high water rates, Saxton worries about even higher rates—his insurance premiums, which have risen 746 percent in two years.

"One company would have handled the whole thing (pest control and lawn care) but they required a \$50,000 premium," says Saxton.

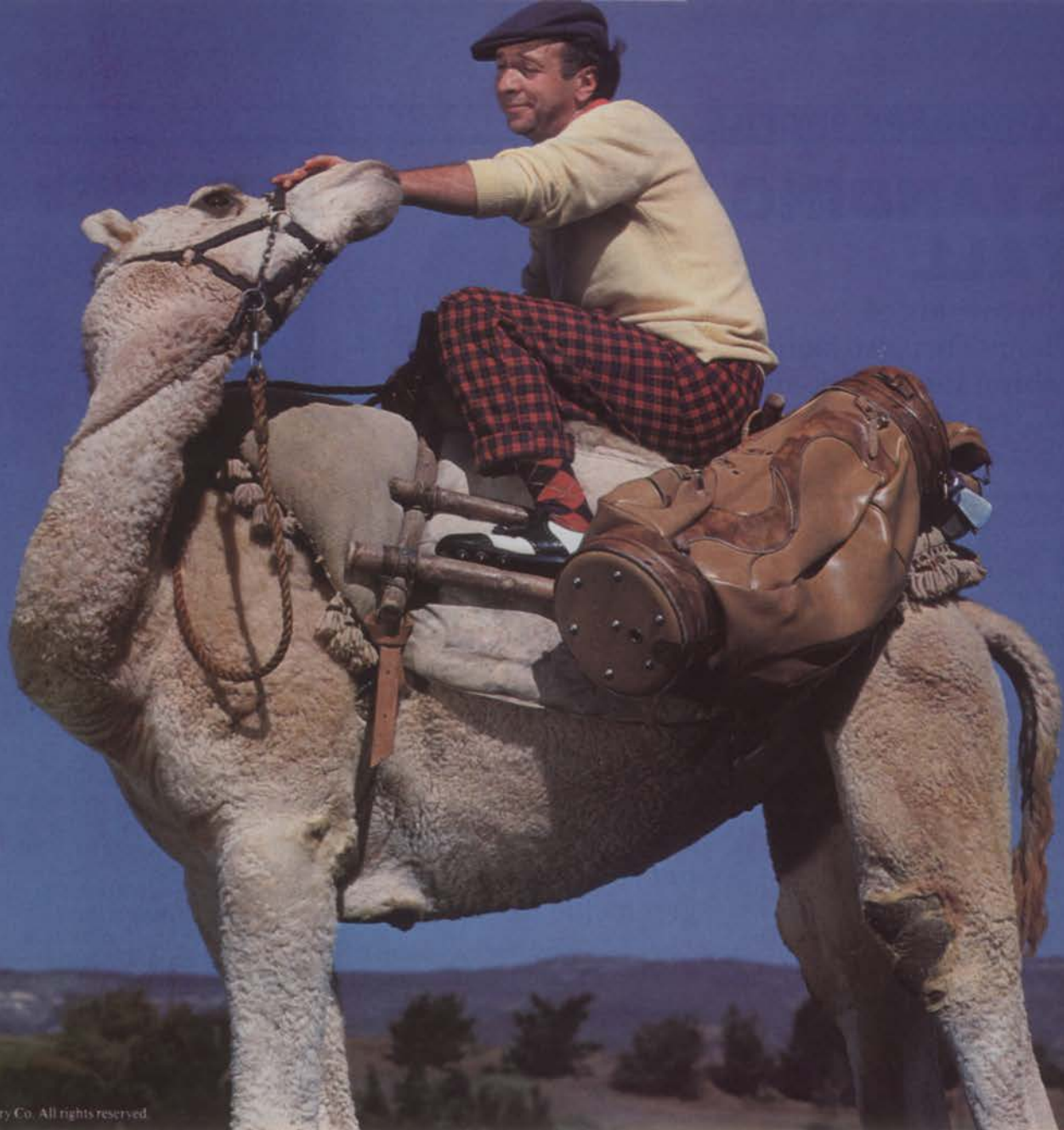
Instead Saxton was fortunate enough to find a company that requires just a 40 percent down payment. He finances the remainder on a monthly basis.

Saxton has been a member of the Professional Lawn Care Association of America since 1981. He's also a member of the National Pest Control Association.

"I believe you have to stay ahead of the people who want to see us doing something else for a living," he says. **WT&T**

—Ken Kuhajda





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But the truth is, the new Trojan golf car battery may just be the straw that breaks our competition's back.

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Circle No. 150 on Reader Inquiry Card

# STANDING TALL

The owners of Chem-Turf also stand behind their work and behind their customers. That's unique.

**T**he introduction of George Meeley and Frank "Buzz" Cowdery to the chemical lawn care business was, in many ways, typical of the entrepreneurs in this still-young industry.

Back in Palatine, Ill., Cowdery saw a ChemLawn truck making its rounds. "To make a long story short," related Meeley, "we bought a ChemLawn truck. When we started, all I knew was that when you put sod in, it went green-side up."

Chem-Turf of Anaheim, Calif., has come a long way. After two years of 77-hour work weeks that resulted in gradual growth, the company bought out three smaller companies during the next four years.

Part of the reason for Chem-Turf's success has been its dedication to customers.

"If anything makes us unique," says Meeley, "it's that we stand behind what we do, and we even stand behind what our customer does or doesn't do to the lawn."

The California market, about a decade younger than the industry itself, is not all that competitive, but much more problematic than other markets back east.

For instance, housing is so expensive (\$125,000 average, third in the nation) that both husband and wife must work. Sure, free time is more valuable, making a lawn care sale easier. But these families usually have a "gardener" to do most of the yard work. And, with nobody home during regular working hours, it's virtually impossible to make weekday sales.

Family relocations also cause a big turnover.

"More than half of our cancellations are from customers moving," says Meeley. "I think it's a misdemeanor for anyone to live in



**Bill Schaeck, former owner of one of the smaller companies bought out by Chem-Turf, now works for Chem-Turf.**



**Chem-Turf's George Meeley: "We'll do virtually anything to make a customer happy—even if he's dead wrong."**

---

*'When we started, all I knew was that when you put sod in, it went green-side up.'*

—George Meeley, Chem-Turf  
Anaheim, Calif.

---

one house for two years and a felony for living in one place four years."

### **No work ethic**

There are other problems, one of which is personnel. Chem-Turf had no employee turnover for three years, but there has been a rash since.

"It's almost impossible to find good people," says Meeley, a native of Philadelphia. "There's something back east called a work ethic. It hasn't spread this far west yet."

Top weed problems are kikuygrass and crabgrass, which thrive because of what Meeley calls the "Santa Ana condition." A pressure front develops over the desert around Christmas. With low soil temperatures, crabgrass "germinates whenever it pleases." And "you can almost rest assured that by May or June, you'll get a second generation." Meeley says he uses Betasan, but gets barely satisfactory results.

Bug problems are confined to occasional grub breakouts, but even those are complicated by the state of California, which does not allow Oftanol applications. "We use Proxol, irrigate five times a day, and then we pray," says Meeley.

Chem-Turf uses benomyl on summer fusarium, and extra nitrogen helps prevent rust in cool weather.

The owner of one of the smaller companies bought out by Chem-Turf, Bill Schaeck of Chem-Green, now works for Meeley and Cowdery. Schaeck started an aeration service earlier this year.

"Our first year was phenomenal," Schaeck claims. "We aerated more than 500,000 sq. ft. in April, May, June, and July. It was no more than putting out a letter and—my God—they just bombarded us. They came out of the woodwork."

This year, one employee and one Ryan Lawnaire IV handled all the work, but Chem-Turf might be forced into expansion soon.

Health problems have plagued the owners, but they've still grown at a 20 percent clip. Meeley had polio as a child. Though he was walking lawns two years ago, he has since kept pretty much behind the desk. Cowdery, too, has spent his share of time in the hospital recently.

"If we can keep our growth at 20 percent, we'll be in good shape in a couple of years," Meeley concludes.

—Jerry Roche



There's no better value for crabgrass control than Balan. And none with more experience. It's been used more years by more golf course superintendents than any other granular preemergence herbicide.

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Circle No. 121 on Reader Inquiry Card



## Proven Balan.<sup>®</sup> The better spreader for crabgrass control.





# The most effective crabgrass

Proven Balan.  
The better spreader for crabgrass control.

ACTIVE INGREDIENT  
Pendimethalin

## Take our

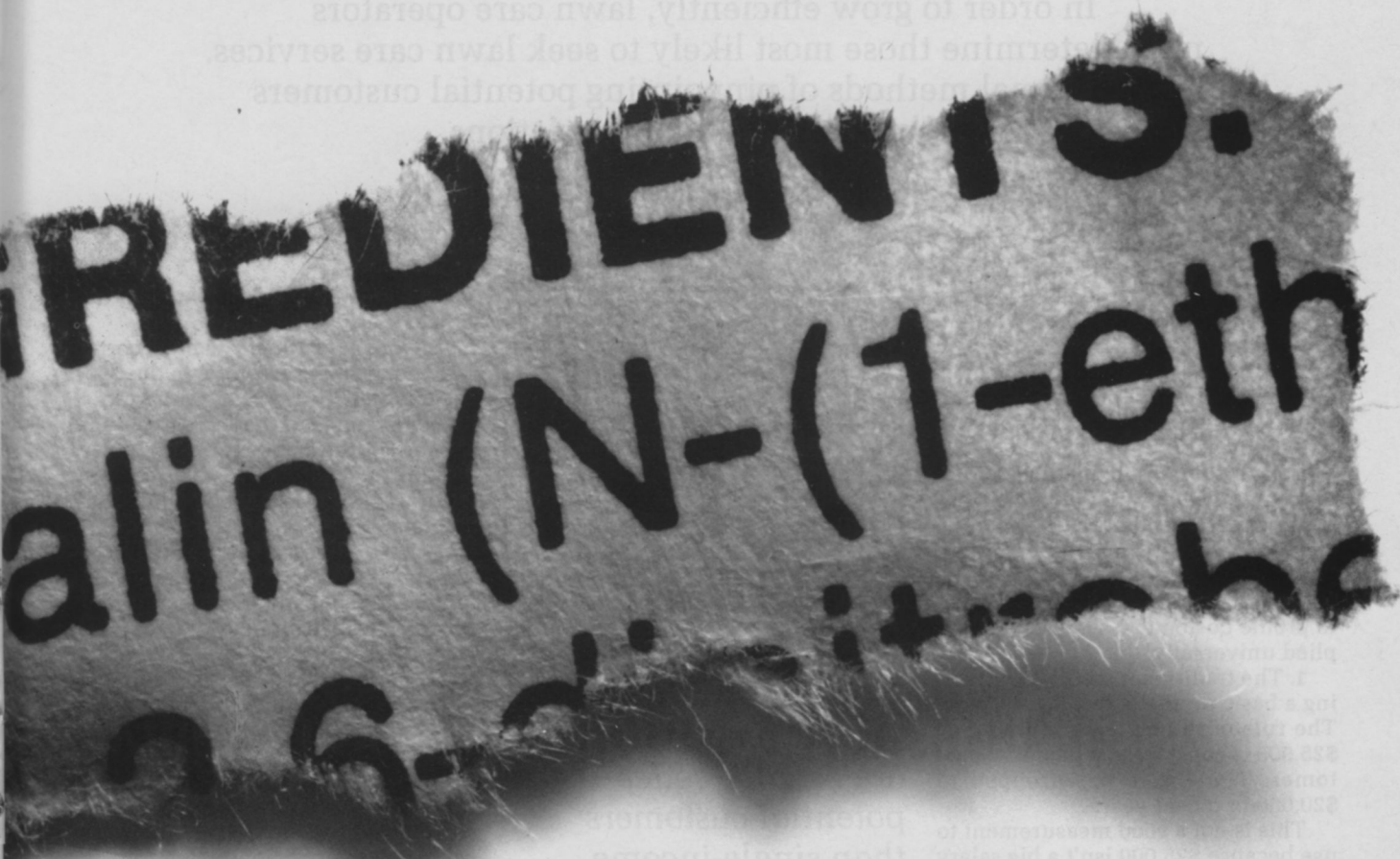
Labels of your best pre-emergent crabgrass and goosegrass herbicides have one thing in common. And it can be summed up in a word: *pendimethalin*.

That's because pendimethalin from American Cyanamid is the only active ingredient that offers season-long crabgrass and goosegrass control in both warm and cool season turf grasses. And it does it very economically.

But pendimethalin controls more than just crabgrass and goosegrass. One low rate also prevents other tough grassy weeds including foxtail, fall panicum, barnyardgrass and *Poa*



# and goosegrass control.



## word for it.

annua. Hard-to-control broadleaf species like oxalis and spurge are also eliminated with the same rate.

What's more, pendimethalin breaks down into the environment. And it doesn't move laterally through the soil. Which means it won't seep into bodies of water or stop vegetation you don't want it to stop. Plus, pendimethalin-based herbicides don't have an offensive odor like some products.

So remember, when you select a herbicide with pendimethalin on the label, you have crabgrass and goosegrass control in the bag. And our word. Always read and follow label directions carefully.

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Circle No. 103 on Reader Inquiry Card

# LOCATING THE CUSTOMER

In order to grow efficiently, lawn care operators must determine those most likely to seek lawn care services. Traditional methods of pinpointing potential customers are undergoing some variations.

by Rudd McGary and Ed Wandtke

One of the pressing questions asked by lawn care operators is: "Who are my potential customers?"

One tool used to measure the marketing effectiveness of lawn care companies, large or small, is their answer to that question.

Let's discuss some methods of determining how to profile your potential lawn care customers. They may be slightly different from those you are now using.

Several key points should be used to profile customers. They can be applied universally.

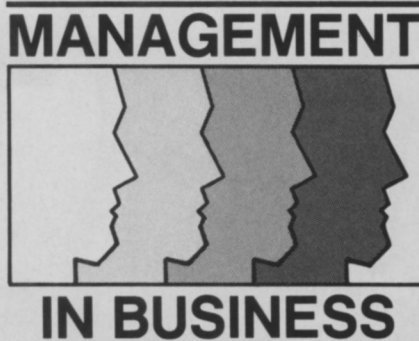
1. The traditional method of drawing a basic profile is through income. The rule of thumb: a person making \$25,000 is considered a potential customer. The figure has dropped to \$20,000 in recent years.

This is not a good measurement to use because \$25,000 isn't a big salary in many eastern states. It may be a comfortable middle-range salary in other areas of the country.

Don't use a constant, such as simple income.

Generally we like to look at the top 40 to 50 percent of the incomes in the area, not at a specific income figure.

This helps eliminate any regional



*Two-income families are usually better potential customers than single-income families.*

income differences.

2. House value is also a key. Examine what percentile of the population falls into which house value. Don't consider an absolute dollar figure.

If you have someone whose income is in the 30th percentile and whose house is in the 30th percentile of your geographical area, you have a strong potential customer.

Generally we don't like to go much below the 40th percentile on house value for ranking potential customers.

3. The median age of the customer also has a bearing on the way people buy. Often the lawn care customer is 30 or older.

Median age depends a great deal on geographical area.

4. Two-income families are usually better potential customers than single-income families. Busy working people usually like outside services to

perform a variety of jobs around the home.

A word of caution: you must correlate the income percentile to the two-income statistic to make this work.

For example, if there are two wage earners in the home and they are in the lower 40 percent of income in your area, they aren't good potential customers.

5. Lawn size generally should be above 5,000 sq. ft. (If you have a "mini" price below this you can also do very well if your customers are grouped near each other.)

In certain parts of the country, lawn size is smaller, usually in older cities.

6. Some simple parameters to consider: are there single-family dwelling units in the area; do they feature some sort of lawn; are they in areas that you can reach cost-efficiently?

Where do you find these facts?

The U.S. government has printed a lot of information on demographics. In addition, you should examine marketing research companies and mailing houses. Many contain current demographic information.

The keys are to determine who your customers can be, to make sure your information is accurate, and then to assemble a marketing plan that is both professional and unique.

Whether you choose direct mail, telemarketing, electronic media, print media, referral systems, bonus systems, or a combination, you must have the correct information on your target.

Without this you may grow, and grow well—but you won't know why. With it you can control your marketing costs, track your progress, and be able to adjust your marketing plan from year to year.

Only companies that pay attention to detail are going to grow as the competition and government regulation become more complex.

**WT&T**



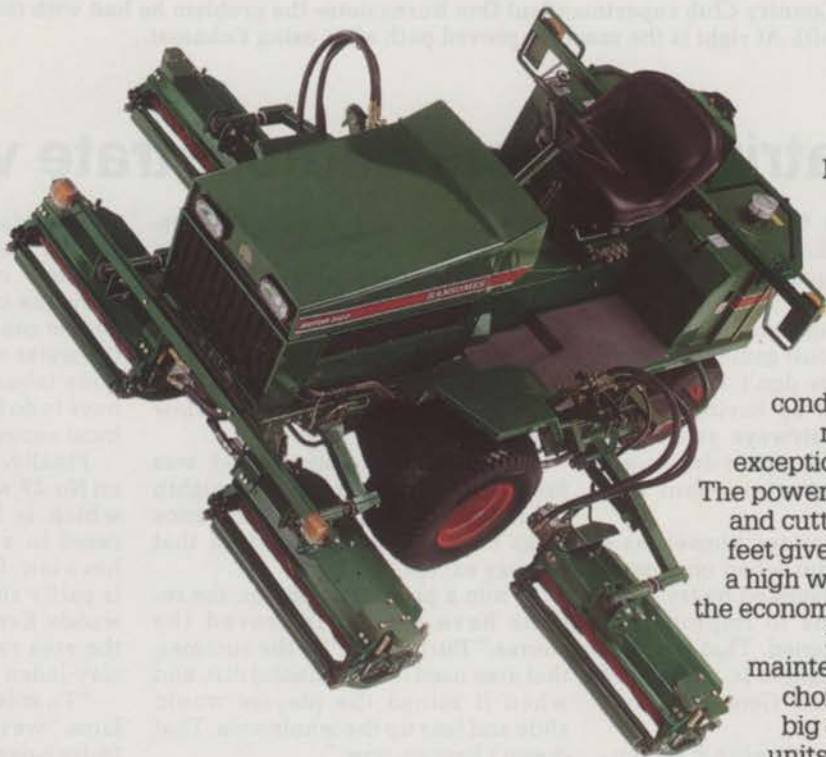
Wandtke and McGary are senior consultants with All-Green Management Associates in Columbus, Ohio. Dr. McGary focuses on marketing and management issues. Wandtke focuses on operations and financial questions.





*Unerring accuracy is a must in negotiating the eighth at Ken Venturi's Eagle Creek Country Club, Naples, Florida.*

## Grounds for Ransomes.



Ransomes Motor 350D provides a superb finish to fairway grass at Eagle Creek, keeping the course in top flight playing condition and adding measurably to its exceptional appearance. The powerful diesel engine and cutting width of 11½ feet give the Motor 350D a high work capacity and the economies so important in day to day turf maintenance. There's a choice of fixed head, big diameter cutting units for long grass or floating head Sportcutter cutting units for fine turf. Either way, you get a consistently good looking result. And that's grounds for seeing your Ransomes Bob Cat distributor. Or, call Ransomes Inc., One Bob Cat Lane, Johnson Creek, WI 53038, (414) 699-2000.

**RANSOMES**

**The grass machine.**

Circle No. 139 on Reader Inquiry Card



Biltmore Forest Country Club superintendent Don Burns notes the problem he had with the cart path on the number 8 hole (left). At right is the much-improved path after using Enkamat.

## Geomatrix products demonstrate versatility

Biltmore Forest Country Club in Asheville, N.C., has shown a drastic improvement in quality since experimenting with some technologically advanced materials several years ago.

"Golf is a difficult game to master, and our members don't want to be further frustrated by having to deal with worn-out fairways and soggy areas that result from poor drainage," says Biltmore superintendent Don Burns.

Burns characterizes himself as a "traditionalist." But when one member of the club suggested he try more modern solutions to improve the course, Burns listened. That member was Palmer L. Skoglund Jr., director of BASF Corporation's Geomatrix Systems.

The products Skoglund recommended included Enkamat, a soil-reinforcement matting; Enkadrain, which is used to keep moisture away from subsurface walls; and Enkadrain H, a drain matting that can be applied to soggy areas to drain off excess water.

"I was skeptical about these products at first," Burns admits. "But now you can count me as a believer."

One of the first problems club management faced was a wet, damp pro shop basement. When a new patio was added, the foundation was dug up and Enkadrain was installed. That solved the problem and allowed a previously unusable part of the shop to become a

shoe shine and golf club storage area.

Enkadrain is a matting designed to relieve hydrostatic pressure, one of the primary causes of basement water problems. Placed against foundation walls with the filter facing away from the structure, Enkadrain blocks out sediment and channels water flow down to a drainage pipe.

Enkamat, on the other hand, was first used on the fairway of the eighth hole. Since then, no maintenance tasks have been performed on that fairway except aeration.

"From a player standpoint, the results have greatly improved the course," Burns says. "In the summer, that area used to turn to solid dirt, and when it rained the players would slide and tear up the whole area. That doesn't happen now."

He even used the black nylon material—which absorbs heat—on top of the ground as a heat sink to germinate grass on the banks of a pond at the third green. Grass seed can be sprinkled on top of it, and it grows through the mesh. The procedure is especially effective during heavy spring rains when it's difficult to get grass to germinate. Foot traffic that would normally destroy the grass has no impact on the geomatrix material, which protects and supports young grass plants.

Enkamat has also helped Burns deal with erosion problems. It has been installed on steep banks around the practice tee, preventing wash-

And it's also been used on banks along a creek that runs across the course.

"Now we have nice, even banks along the creek and the maintenance people can go right up to the edge of the water with mowers. It's a tremendous labor-saver because we don't have to do the whole area with a small hand mower," Burns claims.

Finally, a serious drainage problem on No. 17 was solved with Enkadrain, which is Enkamat completely encased in a filter fabric. The fairway has a low, flat area near the creek that is partly shaded by 50-foot-tall hardwoods. Even during long, dry periods the area remained soaking wet. And clay-laden soil clogged drains.

"To solve the problem," Burns relates, "we cut a series of 250-foot long, 18-inch deep, 6-inch wide ditches and put down plastic pipe with holes in it on top of a layer of gravel. We covered the pipe with a filter fabric to keep the pipes from getting clogged."

"We put additional gravel on the pipes and then inserted Enkadrain H. It blocks all the soil and clay and prevents them from getting into the drainage system."

To fill the trenches, a thin layer of soil was placed on the Enkadrain H and the original sod was replaced.

Burns and others foresee increasing use of geomatrix products because they're lightweight, easy to handle, and can be put down quickly with a minimal disruption of play. **WT&T**



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Surflan preemergence herbicide is so gentle on your established shrubs and ornamentals you can spray it directly over the top, even over sensitive ornamentals like petunias.

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picture-perfect  
weed control.**



## Malathion and Sevin mixed

**Problem:** Malathion and Sevin are used in combination by some companies for insect control on trees. At what rate should each be applied when mixed together? What are the advantages of this mixture? (Canada)

**Solution:** The rate at which malathion and Sevin are mixed depends upon the pests to be controlled. For example, malathion can be used from 1.5 pints/100 gal. to 2 pints/100 gal., depending upon the pests to be controlled.

Similarly, 1 qt./100 gal. of Sevin is recommended for most pest control, but when dealing with beetles (like Ips), 2 qt./100 gal. of Sevin is recommended. The rate of these mixtures can be selected depending upon the pest problem.

When mixing malathion and Sevin, do not reduce the amount from their recommended rates because these insecticides are, for the most part, effective on different pests. Reports suggest that a mixture of these would give broad spectrum control of various insects.

## Soil drench for birch trees

**Problem:** Can Cygon 4E be used as a soil drench for birch trees when applied at a rate of 3/4 oz. per inch diameter of trunk? What time is best for soil drench? Can Cygon 4E be used as a paint on the bark for treatment of birch trees? At what time is it best for Cygon paint? (Canada)

**Solution:** The Cygon label does not indicate that it can be used as a soil drench for birch trees. Check with your pesticide regulatory agency or the Ministry of Agriculture in Canada to determine the feasibility of its use around birch trees. There is no information on the label to indicate that Cygon 4E can be used as a paint on the bark of the birch tree.

## Woolly aphid control

**Problem:** Can you suggest a method of controlling woolly aphids in fir trees other than using diazinon or malathion? My success rate has been only fair with those pesticides. Would a systemic give better results? (Canada)

**Solution:** The woolly aphids you are referring to are not true aphids. They are adelgids (*Adelges piceae*). Adelgids are a pest on true firs (*Abies* sp.). It does not affect Douglas fir, *Pseudotsuga menziesii*, a tree that is not a true fir.

Balsam woolly aphids are reported to be all females in the United States. The adults are less than one millimeter long and are purple to black when the straw-colored wax is removed. They are wingless

and remain attached to trees with their long penetrating mouth parts.

The eggs hatch into very small crawlers which can be spread to other areas through wind current. After reaching a suitable site, these crawlers introduce their feeding mouth part into the bark and develop whitish, waxy woolly material.

An early sign of damage is a small swelling or "gouting" at the end of the twig. If the infestation is severe, the whole trunk will be covered with the "wool" of the aphid. More susceptible firs such as balsam (*Abies balsamea*) or Subalpine fir (*A. lasiocarpa*) may be killed before the terminal swelling occurs.

Spray with Orthene systemic insecticide. This will kill the insects, but the woolly material may remain. It is important to spray thoroughly to get proper coverage to obtain good control. Read and follow label specifications.

## Information on Basagran

**Problem:** You recently wrote about Basagran for use on nutsedge. Where can I obtain more information on the chemical and its availability in Asia? (Singapore)

**Solution:** For information on Basagran, contact BASF Wyandotte Corporation, Parsippany, New Jersey 07054 USA. BASF personnel should be able to answer your question concerning Basagran's availability in Asia.

## Chemical over-application

**Problem:** If we follow label specifications, is it possible to over-apply an insecticide/fungicide on a tree with a recommended concentration or would the excess spray run off? (i.e. 1.25 liters malathion per 1,000 liters water and 1 lb. polyram per 100 gal. water) I am not referring to the concentration of the chemicals, but the spray applicator spraying too much of the mixture on the tree. (Canada)

**Solution:** It is unlikely that you could over-apply an insecticide/fungicide on a tree with a recommended concentration. However, if the label specifications are not followed, the results may vary. Another thing to remember is to make sure that the material is labelled for that particular pest, host, and use, and that the foliage is not blasted or sprayed when the temperature is too hot.



Balakrishna Rao is Director of Lawn Care Technical Resources for The Davey Tree Co., Kent, Ohio.

Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, OH 44130. Please allow 2-3 months for an answer to appear in the magazine.



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NOVEMBER 1986/WEEDS TREES & TURF 53

  
**MILLIKEN  
CHEMICALS**



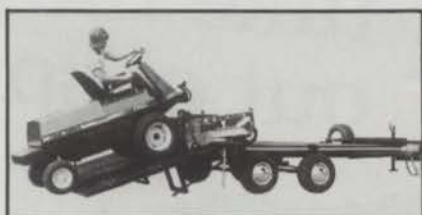
# PRODUCTS

## Sno Bird trailers offer multi-purpose use

Sno Bird Trailer Co. Inc. offers six models in its expanded line of utility trailers.

The six are available in 12 ft., 16 ft., and 22 ft. bed lengths, and can accommodate several different pieces of equipment such as wide front end mowers and utility tractors.

Ideal for commercial mowing, landscape, and general ground care



services, the trailers feature beaver tail and loading ramp, splash guards, tie-down loop brackets, 10-ply tires, 7-gauge rims, and a standard lockable tool box. Capacities

range from 1850 to 7000 lbs.  
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## Floating pump requires minimal maintenance

Barebo Inc., manufacturer of Otterbine products, also manufactures a gas-powered floating evacuation pump that has no seals to wear out and requires little maintenance.

The lightweight portable pump has many uses. It irrigates; aerates fish ponds; cleans boats, docks, and equipment; and drains standing water, evacuation ditches, swimming pools,



sand traps, and other flooded areas.

It requires no suction hoses, foot valves, or priming, and discharges water at a rate of 320 small GPM.

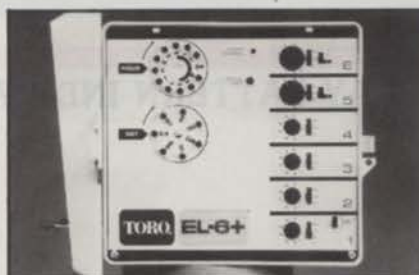
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## Toro Irrigation debuts EL-6+ controller

Toro Irrigation releases its EL-6+ Controller, designed for residential and light commercial use.

Available in a Cyclac plastic cabinet, the EL-6+ controls up to six stations with individual station timing ranging from three to 60 minutes. Two stations provide up to 12 hours for drip irrigation. The EL-6+ timer is ready to perform immediately after dialing-in watering times.

The EL-6+ provides individual station control for automatic or manual operation. Watering schedules can be checked at a glance and no back-up batteries are needed to maintain a program in the event of a power outage.



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## 4-Gallon Timesaver

When you buy a commercial mower from Kees, you get a big, 4-gallon fuel tank, because at Kees, we know what you want from a mower. You want it to get you through tough mowing jobs quickly and efficiently. But stopping to gas up slows you down.

So does mower downtime. That's why Kees mowers are built with superior materials and workmanship that gives you years of dependable, trouble-free service.

All Kees heavy-duty commercial mowers feature sleek design, Ultra High-Lift blade and fully baffled underdeck for close-quarter mowing and efficient grass clipping discharge.

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...for  
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**'The best greens I  
ever putt on'**

Harry Anderson, Greens Chairman  
Wilmington CC, Delaware



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

## PennLinks creeping bentgrass – working wonders at Wilmington

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

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

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



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

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

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

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



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**MANAGEMENT TRAINEES**—Northern Nurseries, an expanding, wholesale horticultural distributor, with several locations in the Northeast, has entry level positions available for aggressive, career-minded people. Candidates will be involved in day-to-day operation of distribution centers, training for advancement to management positions. Minimum 2 years trade experience with degree preferred, working knowledge of landscape plant materials, excellent communication skills with strong desire to learn and advance. Send current resume with salary history to Northern Nurseries, Inc., Attn: John Price, 5550 Victor-Manchester Rd., Farmington, NY 14425. 11/86

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**PESTICIDE APPLICATOR:** Responsible for pesticide application on 1,000 acre public display garden under the supervision of Longwood's Integrated Pest Manager, this individual will inspect for plant pest, assist with the development of control strategies and teach the principals of pest management to employees and students. Applicant should have a minimum of 3 years practical experience applying pesticides and/or monitoring pest populations. A B.S. Degree with emphasis in Entomology or Plant Pathology is preferred. The ability to operate a wide range of pesticide application equipment is required. Deadline for applications: January 1, 1987. The salary range is \$20,820 - \$26,700 annually. Excellent benefits. Submit resume and 3 letters of reference to: Donald R. Buma, Longwood Gardens, P.O. Box 501, Kennett Square, PA 19348-0501. 12/86

Fleet Superintendent/Equipment Coordinator to perform maintenance on diesel/gas equipment 80 h.p to 1 h.p. and coordinate the use of equipment for a grounds maintenance service company throughout the state of Florida. Please send resume to Quandt-Ayer Enterprises, P.O. Box 271880, Tampa, FL 33688. 1/87

**IRRIGATION SALES**—St. Louis company needs qualified self-starter to develop Irrigation Division. Send resume to: Tom Walker, Outdoor Equipment Company, 160 Weldon Parkway, Maryland Heights, MO 63043. 11/86

Sales and Service person needed in Virginia Beach area. Only experienced, licensed applicators with excellent customer service skills will be considered. Send resume and references to: Lawn Medic of Tidewater, P.O. Box 1786, Chesapeake, VA 23320. TF

Turf specialist wanted for quality oriented, prominent company on Eastern Long Island. Manage lawn care program and crew. Excellent position, year round full-time, wages commensurate experience and benefits. Reply to: Whitmore Worsley, Inc., P.O. Box 10, Amagansett, NY 11930. 12/86

Spray technicians wanted for quality oriented, prominent company on Eastern Long Island. Knowledge of insects and diseases of ornamental trees desirable. Challenging position, full-time, year-round, wages commensurate experience and benefits. Reply to: Whitmore Worsley, Inc., P.O. Box 10, Amagansett, NY 11937 12/86

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Tree pruners and climbers wanted for quality oriented, prominent company on Eastern-Long Island. Excellent position, full-time, year round, wages commensurate experience and benefits. Reply to: Whitmore Worsley, Inc., P.O. Box 10, Amagansett, NY 11930 12/86

Landscape Architects/Supervisors (project foremen) join a nationally acclaimed firm looking to expand into its second generation Long Island area supports a high budget landscape industry. Year round employment, company benefits and continuing education available. Experienced and aggressive people send resume to: **GOLDBERG & RODLER, INC.**, 216 East Main Street, Huntington, New York 11743. 1/87

A rapidly growing lawn care company seeks an individual to perform liquid/granular lawn care applications, as well as lawn renovations. Job has potential to grow into sales and management position. Long hours required during peak periods. Solid background and experience in turf required. Top pay and benefits package. West suburban Boston. Call (617) 444-0944 anytime. 11/86

**LANDSCAPE MAINTENANCE.** Top notch Washington D.C. area landscape firm is looking for a responsible foreman to do residential maintenance, emphasizing quality tree, shrub and bed care. We are also seeking a spray technician trainee to assist with our integrated pest management program etc. Good pay with benefits. No weekend work. Willingness to work hard and produce is essential. Related education or experience preferred. Send resume and reference to: Garden Gate Landscaping, 821 Norwood Road, Silver Spring, MD 20904. 11/86

Maintenance foreman to do quality commercial maintenance. Knowledge of turf and ornamentals and at least 3 years experience. Good salary and benefits. Reply to Country Greenery, Box 638, Pittstown, NJ 08867. 11/86

**GENERAL MANAGER—UNDERGROUND SPRINKLER CO.** Growing lawn sprinkler installation company. We are opening our fourth office in the Midwest. We need an expert in underground irrigation with excellent business knowledge and objectives. Experience should include design, installation, scheduling, service, sales and administration. Send resume to The Lawn Pros Sprinkler Co., 3508 B Roger B. Chaffee Blvd., Grand Rapids, MI 49508 11/86

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**SUPERINTENDENT LANDSCAPE MANAGEMENT**—Premier firm seeking motivated individual to contribute to continuous success in professional horticultural care. Responsible for scheduling and expediting tree, lawn, residential and commercial maintenance crews; procurement of materials and equipment. Strong people skills, organization and management skills are essential. Contact **LIED'S**, 8616 Hwy. 45, Neenah, WI 54956. 11/86

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**PROJECT MANAGER:** Excellent opportunity for career and goal oriented individual to work with a commercial landscape firm in Atlanta, Georgia. Must be experienced in all aspects of landscape construction and willing to assume total responsibility. Good salary, benefits and incentive program. Scapes, Inc., 404-956-7500. 11/86

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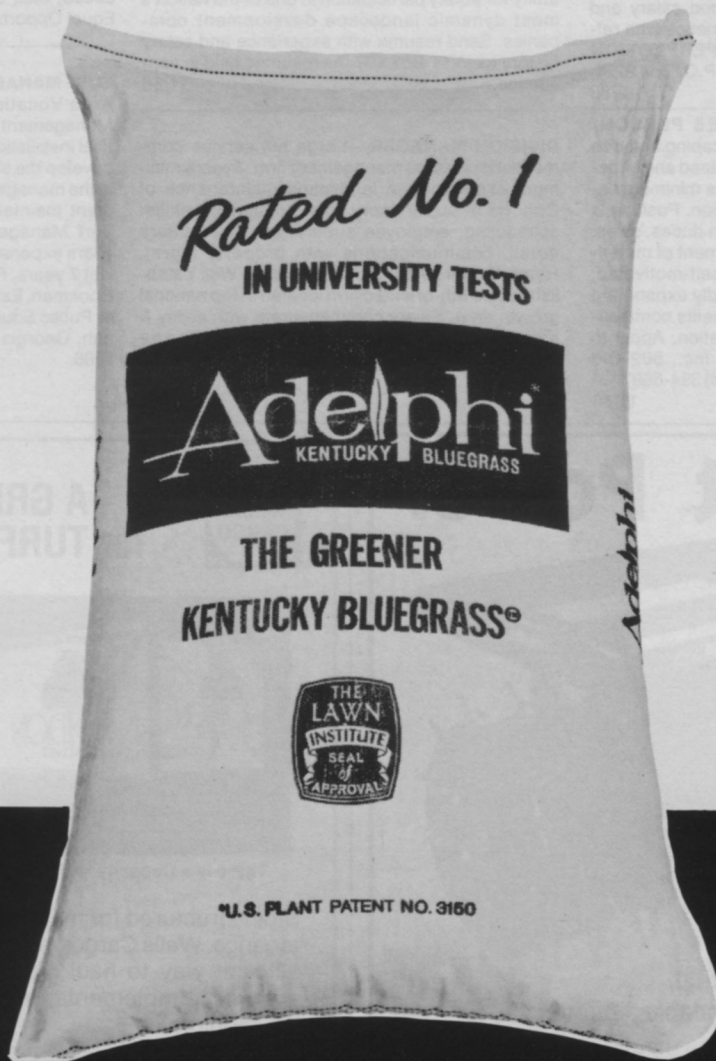


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**GENERAL MANAGER:** Aggressive landscape development firm with offices in Texas and Arizona expanding to California. Seeking **General Manager** with experience in marketing/sales and management of commercial landscape company. Prefer applicant have experience and/or client contacts in either the Arizona or California markets. Successful candidate may have the opportunity for equity participation in one of the nation's most dynamic landscape development companies. Send resume with experience and salary history to: WTT Box 407. All resumes held in confidence. 11/86

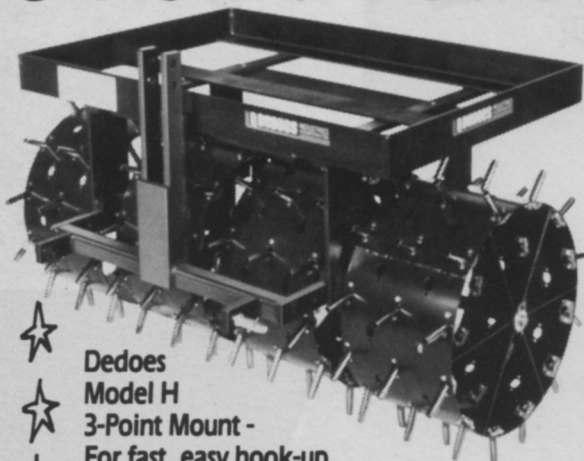
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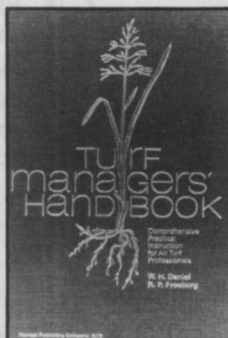
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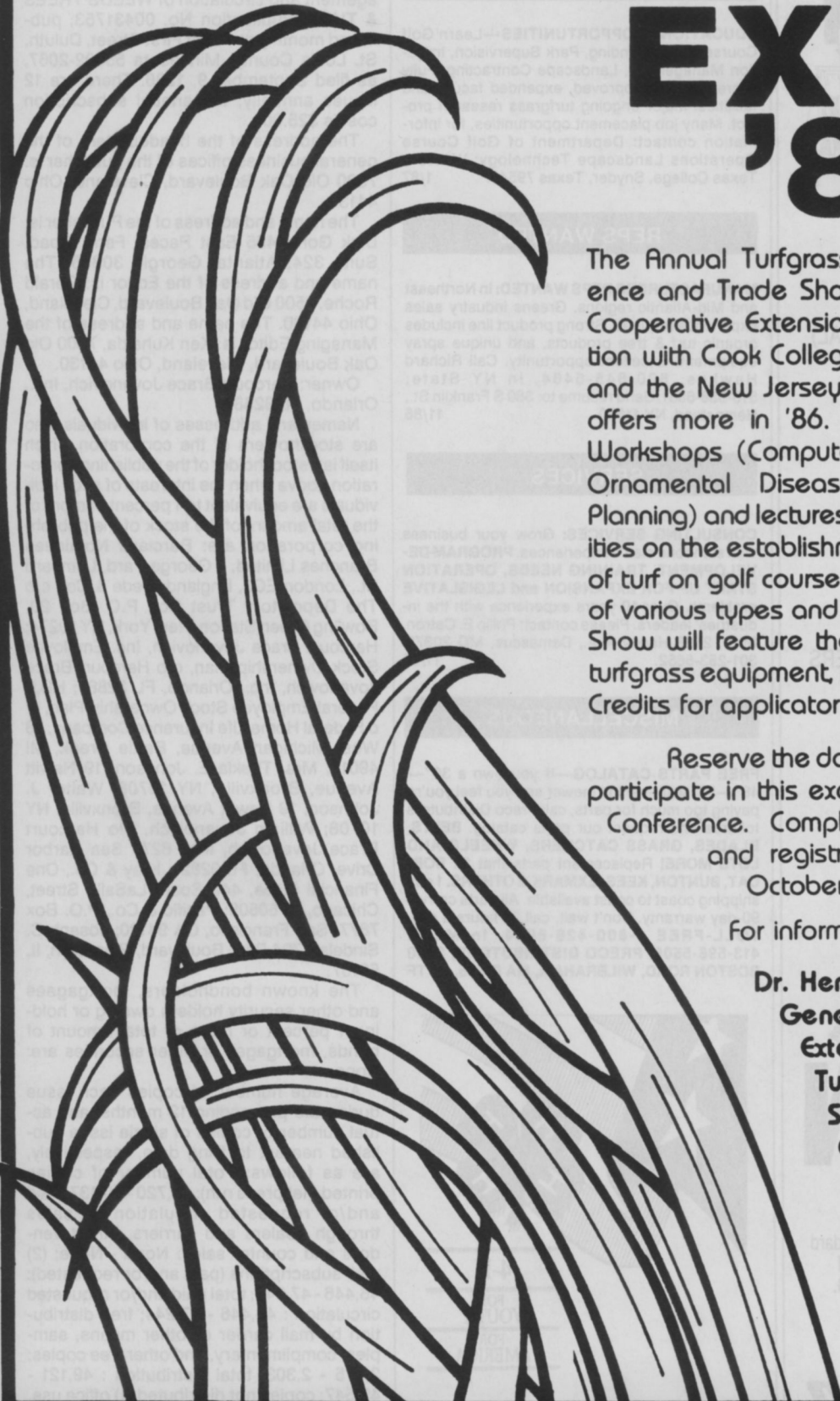
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# NEW JERSEY TURFGRASS EXPO '86



The Annual Turfgrass Educational Conference and Trade Show, sponsored by the Cooperative Extension Service in cooperation with Cook College - Rutgers University and the New Jersey Turfgrass Association offers more in '86. Sessions will include: Workshops (Computers, Irrigation, Design, Ornamental Diseases, Stress, Financial Planning) and lectures by recognized authorities on the establishment and maintenance of turf on golf courses, athletic fields, lawns of various types and use of sod. The Trade Show will feature the latest technology in turfgrass equipment, irrigation and products. Credits for applicator recertification offered.

Reserve the date, plan to attend and participate in this exciting annual Turfgrass Conference. Complete program details and registration forms available October 1, 1986.

For information contact:

**Dr. Henry W. Indyk**  
General Chairman  
Extension Specialist in  
Turfgrass Management  
Soils & Crops Dept.  
Cook College -  
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## EDUCATIONAL OPPORTUNITIES

**EDUCATIONAL OPPORTUNITIES**—Learn Golf Course Superintending, Park Supervision, Irrigation Management, Landscape Contracting. Fully accredited, VA approved, expanded faculty and facilities: major ongoing turfgrass research project. Many job placement opportunities, for information contact: Department of Golf Course Operations Landscape Technology: Western Texas College, Snyder, Texas 79549. 1/87

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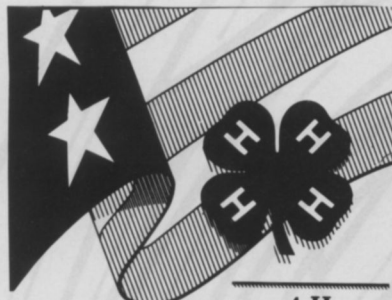
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Statement required by the Act of October 23, 1962, Section 3685, Title 39, United States Code, showing the ownership, management and circulation of WEEDS TREES & TURF, Publication No. 00431753, published monthly at 1 East First Street, Duluth, St. Louis County, Minnesota 55802-2067, as filed September 9, 1986. There are 12 issues annually; the annual subscription cost is \$25.00.

The address of the headquarters of the general business offices of the publisher is: 7500 Old Oak Boulevard, Cleveland, Ohio 44130.

The name and address of the Publisher is: Dick Gore, 455 East Paces, Ferry Road, Suite 324, Atlanta, Georgia 30305. The name and address of the Editor is: Gerald Roche, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. The name and address of the Managing Editor is: Ken Kuhajda, 7500 Old Oak Boulevard, Cleveland, Ohio 44130.

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Names and addresses of individuals who are stockholders of the corporation which itself is a stockholder of the publishing corporation above when the interests of such individuals are equivalent to 1 percent or more of the total amount of the stock of the publishing corporation 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; Harcourt Brace Jovanovich, Inc. Employee Stock Ownership Plan, c/o Harcourt Brace Jovanovich, Inc., Orlando, FL 32887; HBJ/Federal Employee Stock Ownership Plan, c/o Federal Home Life Insurance Company, 78 West Michigan Avenue, Battle Creek, MI 49017; Mrs. Thekla E. Johnson, 19 Hewitt Avenue, Bronxville, NY 10708; Walter J. Johnson, 19 Hewitt Avenue, Bronxville, NY 10708; William Jovanovich, c/o Harcourt Brace Jovanovich, Inc., 6277 Sea Harbor Drive, Orlando, FL 32821; Kray & Co., One Financial Place, 440 South LaSalle Street, Chicago, IL 60605; Pacific & Co., P.O. Box 7877, San Francisco, CA 94120; Joseph C. Sindelar, 794 Park Boulevard, Glen Ellyn, IL 60137.

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

(Signed) Joe Bilderbach  
Vice President/Circulation



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NOVEMBER 1986/WEEDS TREES & TURF 71

## Athletic turf...revisited

Our September issue has generated tremendous feedback. You'll recall we devoted most of the issue toward addressing how an athletic field manager can make his field safer.

We're saddened by some of your replies. There's no doubt that most are trying to do an adequate job of maintaining your fields, but your responses tell us the job is next to impossible.



Howard Parker, manager of maintenance, grounds, and custodial services in the Newfane Central School system in Newfane, N.Y., poignantly writes:

"(We have) two men to mow four schools and related fields (over 100 acres), repair and maintain 13 vehicles and several mowers, deliver supplies, and maintain three playground areas, 13 ball fields, paint five fields once a week in the fall, paint the track once a week in the spring, and plow snow and refurbish equipment in the winter. It's no fun job."

Mr. Parker concludes: "There just is not enough time to even properly consider field maintenance. Planning programs without a real possibility of implementing them is hopeless (almost)."

That's just one example. We've received other letters and phone calls along those same lines.

There's no doubt that many school systems are in financial trouble; there's a choice between updated textbooks and adequate maintenance budgets. School levies are shot down with alarming frequency.

Yet some schools systems with money in the coffers are ignoring the conditions of their sports fields. Sadly, they review the conditions only when a serious injury (and lawsuit) occurs.

If administrators refuse to face up to horrendous conditions, they need to be educated. Here are some things you can do:

Be a pest. Keep on the backs of administration (within reason) until they are made aware of the issue of safe turf.

Be aggressive. Show off your good work, noting conditions before and after you labored.

Be efficient. Document your work, develop yearly budgets, keep tabs on equipment, and keep an eye to long-range plans.

Give administrators a copy of the September issue of WEEDS TREES & TURF to call attention to the problem of unsafe turf.

The next time your request for funds and/or equipment is denied, tell the moneymen that you don't want to wait until someone is seriously injured on your surface. That cost is much more than the price of fertilizer, herbicides, a mower, and an aerifier. Only when schools and parks realize this will we make the strides needed toward creating safe surfaces.

Ken Kuhajda, managing editor

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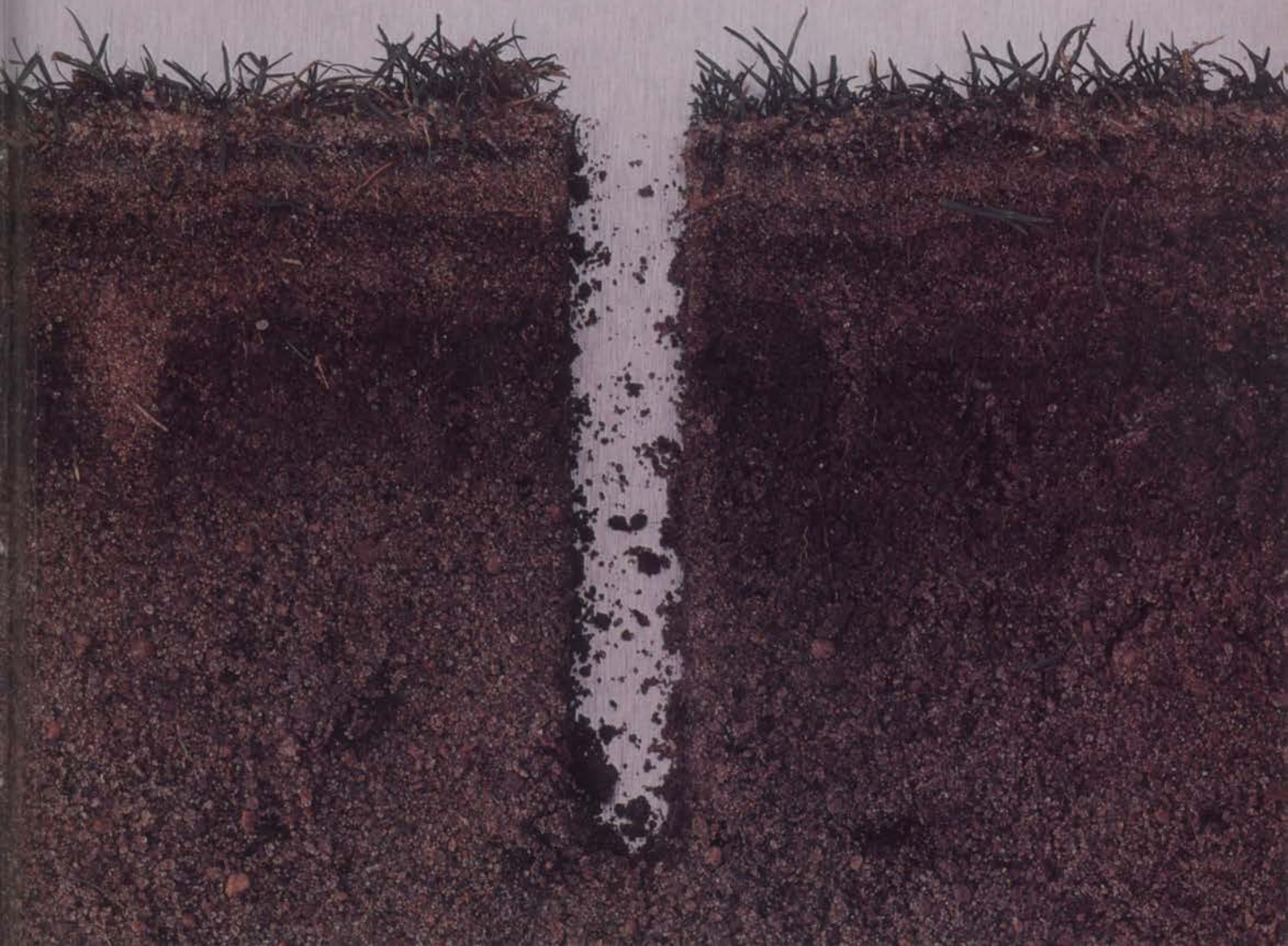


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Gator	5.9	Cowboy	5.4
Prelude	5.8	Dasher	5.4
Tara	5.8	Diplomat	5.3
Repell	5.7	Ovation	5.3
Citation II	5.7	Pennfine	5.3
Manhattan II	5.7	Regal	5.2
Premier	5.6	Delray	5.2
All Star	5.6	Barry	5.2
Blazer	5.6	Omega	5.2
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