Now it's easier to make your greens come true.

We improved the only true Greens Conditioner.

No one else offers the patented features of the Jacobsen Turf Groomer™ greens conditioner. And now, we improved on the best. We did it by making the Turf Groomer easier to use and more durable. And that makes a big difference when you've got a lot of ground to cover.

The improvements begin up front. The exclusive front roller has a larger diameter for reduced rolling resistance, higher side frame clearance and improved durability. It works even better to "pucker up" horizontal runners and plant leaves, readying them for clipping.

And now Jacobsen offers two blade spacings: the standard .280" for most green applications, and an optional .500" which works well where nearby traps have coarse grain sand.

The Turf Groomer’s larger, thicker, six point knife blades are even stronger for longer life.

They rotate through the slots in the front roller, cutting horizontal runners and cultivating strong, erect grass plants.

A quick up/down blade adjuster has four positions in \( \frac{1}{6} \) increments so you can condition each green exactly the way you want. Or, you can raise the blades to skip grooming. And a Micro Depth Adjustment dial lets you fine tune cutting heights by increments of .007" without tools.

Every Turf Groomer greens conditioner comes with a sealed aluminum drive housing to prevent grass, debris and moisture build-up in the heavy-duty 1" belt drive system.

For faster, truer putting and healthier, hardier greens, look to the new Jacobsen Turf Groomer. For a free demonstration, contact your Jacobsen distributor. Or contact Jacobsen Division of Textron Inc., Racine, WI 53403.

Now it’s easier to make your greens come true.
NEW DIRECTIONS!
NEW OPPORTUNITIES!
WHAT TO EXPECT
IN THE 90s

Don't let the future be a gamble! Plan for your company's growth into the next decade by being part of THE EVENT of the lawn care season: the 10th Anniversary Conference and Show of the Professional Lawn Care Association of America. Bet on a sure winner — PLCAA/Las Vegas '89! — four unforgettable days in the entertainment capital of the world. Non-stop excitement, education, celebration and jubilation await you November 6-9!

YES! I'M INTERESTED IN PLCAA/LAS VEGAS '89!
SEND ME MORE INFORMATION ON:
• REGISTRATION • EXHIBITING • MEMBERSHIP IN PLCAA

NAME
TITLE
COMPANY
ADDRESS
CITY STATE ZIP
TELEPHONE

CELEBRATE! PLCAA's Conference and Show is always the lawn care industry's event of the year, but PLCAA/Las Vegas '89 will be something special — the official 10th Anniversary celebration of the founding of the Professional Lawn Care Association of America. You won't want to miss the exciting 4-day round of special events planned to mark this milestone in lawn care history.

EDUCATE! Three tracks of education will help you "Plan Your Business" into the '90s, with discussions of employment, water, finances, government regulations, and pesticide safety. Ample opportunities will allow for informal information exchange among colleagues.

EVALUATE! The latest in lawn care products and technology await your inspection. Over 160 manufacturers, suppliers and distributors will be on hand, eager to answer your questions and demonstrate the tools you need to keep a competitive edge.

PARTICIPATE! This 10 year celebration of lawn care comes around only once, so don't miss it! Don't wait to hear about it from your friends, be there to experience for yourself what all the excitement is about. Experience Las Vegas, spectacular showplace of America where the Stars come out to play every night.

Watch your mail in early summer for registration information, or call PLCAA for information 1-800-458-3466, and mark your calendar for a trip to Las Vegas!

Circle No. 126 on Reader Inquiry Card
RATES: $1.20 per word (minimum charge, $35). Bold face words or words in all capital letters charged at $1.45 per word. Boxed or display ads: $100 per column inch -1x (one inch minimum). $95-3x; $90-4x; $85-6x; $80-8x (Freeweek based on a calendar year). Agency commissions will be based on the above rates. For using blind box number, add $15 to total cost of ad. Send ad copy with payment to Dawn Nilsen, LANDSCAPE MANAGEMENT, 1 East First St., Duluth, MN 55802 or call 218-723-9505. Fax Number 218-723-9615.

BUSINESS OPPORTUNITIES

CURBmate - THE MONEY MACHINE: Patented, electrically driven and self-propelled machine produces beautiful continuous concrete landscape edging. Simplifies the installation of concrete borders between lawns and flower beds, along driveways and sidewalks, etc. Applications for residential and commercial settings, golf courses, etc. Turn $5,000-$10,000 equipment purchase into $50,000-$100,000 potential annual income. (801)273-3938. 10/89

LEARN Professional Landscaping and Gardening at home. Accredited program provides thorough training in all phases of commercial and residential landscaping. Certificate awarded. Free booklet describes program and opportunities in detail. Lifetime Career Schools, Dept. A-415, 2251 Barry Ave., Los Angeles, CA 90064. 9/90

WANT TO BUY OR SELL A GOLF COURSE? Exclusively golf course transactions and appraisals. Would like to hear from you. The Bottom Line. If you are the type of person who wants to buy or sell a golf course, or who has considerable golf course experience and capable of negotiating, EOE. 818-449-0898. 12/89

LANDSCAPE MANAGEMENT SALESPERSON: Leading Kansas City Landscape Company has immediate opening for talented, experienced, and aggressive person in Landscape Management Sales. B.S. in Horticulture or related field preferred. Salary, incentive, benefits. Send a resume with experience and salary history to the address listed. HERMES LANDSCAPING, P.O. BOX 14336, LENEXA, KS 66215. 9-888-2400. 10/89

CONNECTICUT AND NORTHEAST: Selling or buying a green industry business? I'm a specialist in your field with over ten years experience and can locate buyers and sellers. Phil Nilsson. (203)621-2311. 11/89

CURB KING: Curbing machine that lays continuous concrete landscape borders. $2695.00. Low investment, high returns. For information call 303-434-5337 or write PO Box 40567, Grand Junction, CO 81504. 10/89

103 ACRE TURF FARM FOR SALE: southwestern Ohio, established quality, elite bluegrass blend sod. Large charming country home, good water irrigation potential. Send replies to: P.O. Box 111, Springboro, Ohio 45066. 10/89

BUSINESS OPPORTUNITIES

LAWN MAINTENANCE DIVISION MANAGER

We are seeking applications for a Top Notch Manager to handle a growing maintenance division of a large Midwest Landscaping Company. You would be responsible for all phases of the operation including: Sales, Estimating, Training, Scheduling, and most importantly, The Bottom Line. If you are the type of individual that thrives on responsibility and can operate with little direction we would like to hear from you.

Please submit a resume with a cover letter and salary history to:
Goode & Company
Personnel Director
860 West Long Lake,
Bloomfield Hills, MI 48013

HELP WANTED

We are recruiting!
We're looking for knowledgeable people in the following areas:
Environmental Care, Inc.
landscape management
Arbor Care
commercial & industrial arboriculture
Interiorscape Division
interior landscape maintenance

Offices located in:

Arizona
Colorado
California
Denver
EastBay
Florida
Inland Empire
Jacksonville
Los Angeles
Miami
Palm Springs
Orlando
Sacramento
Tampa
Santa Ana
St. Petersburg
San Diego
Nevada
San Jose
Las Vegas
Ventura
Texas
Houston

Send resume to:
Robert L. Scofield
Personnel Department
24121 Ventura Boulevard
Calabasas, CA 91302

a subsidiary of
environmental industries, inc.
an equal opportunity employer by choice

INDUSTRIAL HERBICIDE MANAGER/Applicator. Job openings for quality Herbicide Manager/Applicators (in the Southeast, Northeast, and Midwest). Must be motivated and be willing to travel. Mechanical ability desirable. Send resume or call: Weeds Inc., 520 West Cross, Creek Park, Yeadon, PA 19050. (215)727-5539. 10/89

Landscape Architect wanted - Excellent opportunity now open with a prominent, aggressive landscape management company. Need a landscape architect with knowledge, experience and skills in the design/build discipline to assist in the design/build department. Send resume to Clarence Davids & Sons, Inc., 23900 W. 127th Street, Plainfield, IL 60544, Attn: Kurt Pfедерer. 10/89

NEED LANDSCAPE WORKERS? We can solve any labor problem you have. We have documented workers as well as foremen, leaders, irrigators and architects available at a price you can afford. Call today! AMIGOS 214-634-0500. 10/89

"Consider all of your employment options in the irrigation and landscape industries, Call Florapersonnel, the international employee search firm for the ornamental horticulture industry. Completely confidential. Employer pays fee. Florapersonnel, Inc., P.O. Box 1732, 1450 S. Woodland Blvd., Suite 201, DeLand, FL 32721-1732. (904)738-5151 Jim Bambrick, Jeff Brower, David Shaw, CPC, Bob Zahra, CPC."

NURSERY FOREMAN: Bissett Nursery Corp., large wholesaler of nursery stock and related goods, looking for hard working individual with minimum 2 years experience in nursery industry. Responsibilities: customer sales and service; material handling and maintenance; deal with distributors and run small crews. Excellent salary and benefits. Contact Bissett Nursery, Hollivite, NY, Tel. #516-289-3500. 10/89

BRANCH/SALES MANAGERS; JUNIOR AND SENIOR LEVEL: Orkin Lawn Care offers more to our Managers, so why settle for less? Our company is a leader in its field and expansion dictates the need for senior level Branch and Sales Managers to maintain our high-standards and integrity that has built the Orkin reputation. We offer unlimited room for advancement into top-level management, salary plus incentive bonus, and a competitive benefits package to talented and ambitious Orkin team members who are dedicated to success. You will report directly to Zone Managers and be required to: "Initiate and develop effective work atmosphere, 'Meet financial objectives — revenue, cost control, profits, and profit margins. "Enforce Orkin policies and procedures "Maintain a strong customer base "Select and train new employees. If you can fulfill these objectives and have the aptitude to prioritize duties and projects, send a confidential resume to: ORKIN LAWN CARE, PAT GUY, 2170 Piedmont Road, Northeast, Atlanta, GA 30324. 10/89

Ohio landscape construction company wants to expand into landscape maintenance and is interviewing Managers and Supervisors. Excellent compensation package. Send resume or letter describing your experience to: Landscape Managers, 1717 Lake Ave., Suite 203, Lakewood, Ohio 44107. 10/89

MANAGEMENT POSITION AVAILABLE - Excellent opportunity for a Professional Landscaper with a major utility contractor for Right Of Way Manager in the New England States. Forestry or related degree with three years field experience with herbicides and their uses, personnel management, and customer relations. Communication skills are a must. We offer competitive salary and benefits and the opportunity for the take charge individual to implement a complete program. E.O.E. Call (401)686-0641. 10/89

GROUNDS MAINTENANCE PRODUCTION MANAGER: Orlando, Florida Landscape Maintenance firm has position available for proven manager/leader. We are a rapidly growing company needing a top player capable in all areas associated with landscape management. Abilities must include: planning, scheduling, training, purchasing, client relations, and quality control. Starting salary is $30,000 plus. Vehicle and benefits provided. Applicants please respond to LM Box 472. 10/89
FOR SALE

For Sale: Spyder Forklift in good condition, with Kohler Motor $5,500; 5 ft. Saddleroller $750. 1-719-683-2262. 10/89

(2) 1989 Toro Industrial walk-behind mowers, 12.5 p.h. 38", $2,100; 44", $2,400. Like new. Contact Greg Schneider at (704)528-3607, Troutman, NC. 10/89

ATTENTION GOLF SUPERINTENDENTS: Great Meyer Zoysia for your Fairways and Tees. Guaranteed Bermuda & fire ant free. Beauty Lawn Zoysia (Cincinnati) 1-513-424-2052. 12/89

ESTABLISHED, 30-year profitable tree business (summers) and snow plowing (winters) for sale due to pending divorce. Pittsburg, PA. Have all equipment, vehicles and loyal clientele. Annual revenue near $70,000. Must sell ASAP. Will sacrifice for $50,000 negotiable. $25,000 down; $25,000 in 12 months. Call Dave 412-766-9414. 10/89

ZOYSIA MEYERS Z-52 SOD OR SPRIGS. EXCELLENT QUALITY DELIVERED ANYWHERE AT CASH OR ACCOUNT PRICES. ALSO ROW PLANTING AVAILABLE. DOUBLE SPRINGS GRASS FARM, SEARCY, AR. 1-800-458-4756. 12/89

16" reconditioned Brower Harvester mounted on a 3600 Ford tractor. Asking $24,900. 16" reconditioned Brower Harvester mounted on a 3600 Ford tractor. Asking $24,900. 10/89


HYDRO-MULCERS AND STRAW BLOWERS New and used. JAMES LINCOLN CORPORATION, 3220 S. Jupiter Rd., Garland, TX 75041. (214)840-2244, (800)527-2304.

1965 Chev. Utility Bed. 6 Cylinder, 5 speed, 11,900. Call Gary at (317)873-5231. 10/89

1970 Ford Flat-Bed V-8, 5 speed, 391 CID, Front Mount, 52-foot Boom, $20,000 nego. 1965 Chev. Utility Bed. 6 Cylinder, 5 speed with 2 speed 292 CID, Rear Mount, 52-foot Boom, $17,000 nego. Phone: Office (303)599-6427 or Home (303)659-5000. 10/89

Bowie Hydromulcher 1100: Trailer mounted with extra duty suspension and extra wide tires, Kubota Diesel powered with heavy duty clutches and powertrain, centrifugal pump and electric hose reel with hose. Well maintained. No rust. $11,900. Call at (317)873-5231. 10/89

Sod. Call us! (513)642-7487. 13600 Watkins Rd., Marysville, OH 43040. TF

For Sale - Used Equipment. 44" VERMEER TREE SPADE mounted on a 1983 Ford 6000 truck. Gear shift; Very good condition. Mozzer wide range of shrubs and small caliber trees. If interested contact, Property Services, Richmond, VA. (804)320-0035. 12/89

WANTED

WANTED: Large Lindig and Rower Shredders. Lewis Equipment, 320 Third Street S.W., Winter Haven, FL 33880. (813)294-5893. 11/89

REPS WANTED

SALES REPRESENTATIVE: We're looking for special energetic individuals to fill our full-time sales representative positions. If you are a self-motivated, "people" person, we offer a great opportunity for interesting and challenging work in either our northern or southern California territories. Target Specialty Products is a full-line distributor of specialty agricultural chemicals and supplies. Degree in one of the biological sciences required. Ornamental/nursery experience is preferred. Salary commensurate with experience, plus commission and auto. Excellent company benefits, including medical and dental coverage, profit sharing and incentives. Send resume to Target Specialty Products, P.O. Box 117, Cerritos, CA 90702. 10/89

EXPERIENCED MANUFACTURER'S REPRESENTATIVE: If you are successful in selling specialty turf products to golf courses, landscape and lawn care customers, you can earn high commissions by selling "VITERRA GELSCAPE", the best water management superabsorbent, and AGLUKON's turf micronutrient suspensions. Training, leads, technical support provided. New territories open. Reply to letterhead stating present product lines you represent. AGLUKON USA, Division NOR-AM Chemical Company, 50 N. Harrison Avenue, Congers, NY 10920. 10/89

MISCELLANEOUS

REPLACEMENT HEAD FOR REAR CUTTER: Replacement Head for Rear Cutters. 1-800-258-8970. 10/89

LAWN SEED: Wholesale. Full line of top quality grasses. Improved bluegrass varieties, fine fescues and fine bladed ryegrasses. We specialize in custom mixing. Olinger Seed Company, 89 Hanna Parkway, Akron, OH 44319. Call collect (216)724-1266. 10/89

FOR SALE: Residential/Commercial landscape and lawn maintenance company located in affluent suburb of Chicago suburb. 70 years in business at same location. Owner retiring. Send inquiries to: Horst Lesser, 4N616 Medinah Rd., Addison, IL 60101. 10/89

88 FORD 5610 NUNES MOWER Designed to mow large areas of turf grass. 17 foot cutting width. Cutting speed up to 6 mph. Large flotation tires. Excellent condition. Artistic Maintenance 714-458-2605.


STUMP CUTTER: Replacement Head for Rear Hodges & Fox. You'll have the fastest, safest portable stumper in the world. Satisfaction money back guarantee. No gimmicks. U.S. Pat. Kinetic Stump Cutter Inc. Toll free 800/422-9344. 2/90


REINO HYDROGRASSER and power mulchers in stock. Odyke Inc. (Philadelphia Area) 215-721-4444. 10/89

Fertilizing and complete maintenance company in northeastern Illinois. Does $200,000 annually. Can separate Spring and Mowing Services. Assets and customer list. Asking $98,000. Call 1-800-243-5296. 10/89

Golf from Auto and Foot Traffic

INEXPENSIVE, RELIABLE

PROTECT GRASS

Call Toll Free
1-800-824-9029
Wait for Tone - 753

NEW and USED EQUIPMENT - Asplundh, Hi Ranger, Vermeer, Komatsu and many other manufacturers. We buy and sell all types of equipment. 1-815-455-7363 or 1-800-397-7509.

BUCKET TRUCKS: Straight Stick, Corner Mount and Knuckle Boom Cranes. Brush Chippers - New Morbark Disc Type, New Woodchuck Drum Type. Best prices anywhere. Used Chippers - Asplundh, Woodchuck, etc. 2 to 8 usually in stock. Sprayers, Stacks, Log Loaders, Crew Cab Chip Box Dumps. Railroad Trucks, 50 in stock. Sold as is or reconditioned. Odyke's, Hatfield (Philadelphia Area) 215-721-4444.


LAWN SEED: Wholesale. Full line of top quality grasses. Improved bluegrass varieties, fine fescues and fine bladed ryegrasses. We specialize in custom mixing. Olinger Seed Company, 89 Hanna Parkway, Akron, OH 44319. Call collect (216)724-1266. 10/89

USED EQUIPMENT

BRUSH CHIPPERS - STUMP CUTTERS: NEW/ USED/TRADE. Stacking full line of Brush Bandit Disc Chippers, 6 in - 12 in. capacity. Rayco Stump Cutters from 20 HP to 75 HP. Hawken森 Enterprises, P.O. Drawer 766, Plymouth, MN 55372. Or call (800)258-8970. 10/89

LANDSCAPE TRAINING VIDEOS

Intermediate mower maintenance field and shop repair; efficient/profitable mowing techniques; professional shurb trimming, plant installation, basic landscape plan drawing, etc. ENGLISH AND SPANISH. Write for free brochure.

54 LANDSCAPE MANAGEMENT/OCTOBER 1989
All in a day's work... for the Brouwer turf maintenance team.

The team to make easy work of your turf maintenance program. For golf courses, school boards, municipalities, highway, parks and recreation departments, airfields and landscapers, there is a Brouwer product for you.

Brouwer builds rugged dependability and superior quality into every product, and that means value - not only when you buy but also in the 'second to none' after sales service that will keep your machinery down-time low, and you happy to have Brouwer on your side. Check these outstanding products, from the rugged, economical mowers, the high capacity Brouwer Vac to the turf renovating team of the Sod Cutter MK2 and one of those turf rollers, no matter, the Brouwer team can fit the bill...and your budget.

1. 5 or 7 Gang Hyd. Lift P.T.O. Mowers
2. Hydraulic lift for easy transport or storage
3. Triplex 376-A™
4. Sod Cutter MK.2™
5. Large Capacity Brouwer-Vac™
6. Turf Rollers 130, 224 & 235
7. 5 Gang Vertical Mower

Dollar for dollar, feature for feature...no competition.

For a live or Video demonstration of Brouwer products contact your area Brouwer dealer...TODAY

Woodbine Ave., Keswick, Ont., Canada L4P 3E9
Tel. (416) 476-4311
Fax. (416) 476-5867

BROUWER
TURF EQUIPMENT LIMITED
An Outboard Marine Corporation Company

7320 Haggerty Rd., Canton, Mi. 48187
Tel. (313) 459-3700
Fax. (313) 459-8778

Copyright 1989 Brouwer Turf Equipment Limited
Your Business Partner

...Helping grow your business

As a busy lawn care professional, you can't be personally involved with the many critical details that go into making your business successful, details ranging from developing staff safety training programs to keeping abreast of the latest regulatory issues. That's why it is vital that you have the timely information that allows you to be proactive rather than reactive. That's why you need your Business Partner — The Professional Lawn Care Association of America. Let your Business Partner go to work for you on such assignments as:

- Issues Management
- Training programs for pesticide management
- OSHA Hazard Compliance
- An effective telemarketing program
- Preparing a marketing plan
- Update on small business law
- Group Health/Life/Major Medical
- A Credit Collection Service
- A Liability Insurance Program
- A newsletter on lawn care issues
- A public relations program
- Gather major suppliers of lawn care products and services

As the only international trade association of lawn care professionals, PLCAA has a strong history of providing the right information at the right time for the lawn care industry. Our staff and Board of Directors are dedicated to providing you with the professional business assistance you need to stay strong and informed.

To learn more about how to put your Business Partner to work — for less than a dollar per account per year, contact the Professional Lawn Care Association of America today. Clip and mail the return coupon, or call toll free 1-800-458-3466.
**ADVERTISER INDEX**

<table>
<thead>
<tr>
<th>NO.</th>
<th>ADVERTISER</th>
<th>PAGE NO.</th>
<th>NO.</th>
<th>ADVERTISER</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>American Cyanamid Co. (Regional)</td>
<td>58-59</td>
<td>122</td>
<td>Mobay/Dylox</td>
<td>13</td>
</tr>
<tr>
<td>102</td>
<td>Brouwer Turf Equipment</td>
<td>55</td>
<td>121</td>
<td>Mobay Corp./Nemacur (Regional)</td>
<td>47</td>
</tr>
<tr>
<td>103</td>
<td>Cushman</td>
<td>23</td>
<td>125</td>
<td>New York State Turfgrass Association</td>
<td>48</td>
</tr>
<tr>
<td>104</td>
<td>Cushman</td>
<td>43</td>
<td>124</td>
<td>Nor Am Chemical Co.</td>
<td>29</td>
</tr>
<tr>
<td>106</td>
<td>Deere and Co., John</td>
<td>2-3</td>
<td>127</td>
<td>Olathe Manufacturing, Inc.</td>
<td>44</td>
</tr>
<tr>
<td>112</td>
<td>Distributor Own Turf Supply</td>
<td>16-17</td>
<td>261</td>
<td>Onan Crop.</td>
<td>15</td>
</tr>
<tr>
<td>105</td>
<td>Ditch Witch</td>
<td>39</td>
<td>129</td>
<td>Oregon Tall Fescue Commission</td>
<td>42</td>
</tr>
<tr>
<td>107</td>
<td>Elanco Products Co./Surflan</td>
<td>25</td>
<td>130</td>
<td>Polaris Industries, Inc.</td>
<td>19</td>
</tr>
<tr>
<td>108</td>
<td>Elanco Products Co./XL</td>
<td>57</td>
<td>126</td>
<td>Professional Lawn Assoc. of America</td>
<td>50</td>
</tr>
<tr>
<td>109</td>
<td>Elanco Products Co./XL</td>
<td>7</td>
<td>131</td>
<td>Reemay, Inc.</td>
<td>6</td>
</tr>
<tr>
<td>110</td>
<td>Goossen Industries</td>
<td>18</td>
<td>132</td>
<td>Seed Research of Oregon, Inc.</td>
<td>37</td>
</tr>
<tr>
<td>111</td>
<td>Hoechst Roussel</td>
<td>21</td>
<td>133</td>
<td>Tee 2 Green Corp.</td>
<td>CV2</td>
</tr>
<tr>
<td>113</td>
<td>Jacobsen Div. of Textron</td>
<td>49</td>
<td>137</td>
<td>Toro Co.</td>
<td>30-31</td>
</tr>
<tr>
<td>114</td>
<td>Lawrence, Inc.</td>
<td>14</td>
<td>134</td>
<td>Turf Merchants, Inc.</td>
<td>41</td>
</tr>
<tr>
<td>115</td>
<td>Lebanon Chemical Co.</td>
<td>45</td>
<td>214</td>
<td>Turf Seed, Inc.</td>
<td>5</td>
</tr>
<tr>
<td>247</td>
<td>Lofts Seeds, Inc.</td>
<td>CV4</td>
<td>136</td>
<td>Turfco Manufacturing, Inc.</td>
<td>12</td>
</tr>
<tr>
<td>119</td>
<td>Mazda Motor of America, Inc.</td>
<td>27</td>
<td>138</td>
<td>Wells Cargo Inc.</td>
<td>24</td>
</tr>
<tr>
<td>118</td>
<td>Melroe Co.</td>
<td>CV3</td>
<td>139</td>
<td>Willamette Seed Co.</td>
<td>33</td>
</tr>
<tr>
<td>120</td>
<td>Milwaukee Sewerage Commission</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>Missouri Valley Turfgrass Assoc., Inc.</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

---

**Grounds Managers**

This Is What PGMS Is Doing For You

If you haven't checked out the Professional Grounds Management Society recently, then you're in for a surprise. We're offering a bundle of new benefits that make joining PGMS more rewarding than ever! Here's what we've been up to and how you can benefit:

- **ANNUAL CONFERENCE AND TRADE SHOW** - The yearly forum bringing together grounds managers, top speakers, and suppliers for the sharing of knowledge and ideas.
- **NEWSLETTERS** - A newsletter is mailed monthly to keep members current on the affairs of the Society and the latest developments critical to successful grounds management.
- **CERTIFICATION** - Voluntary peer review of acceptable competence to enable you to become a Certified Grounds Manager.
- **RESEARCH AND SURVEYS** - Information on operational practices is gathered for dissemination of all members.
- **INSURANCE** - Included in your membership fee of $5,000.00 accident and dismembrment insurance.

No matter how large or small your operation, PGMS is your source for the best, most meaningful grounds management information and help. Your membership investment goes to work for you immediately — that's the PGMS promise. Join now and grow with us!

Clip and mail to:

PROFESSIONAL GROUNDS MANAGEMENT SOCIETY
12 Galloway Avenue
Suite 1E
Cockeysville, Maryland 21030

(301) 667-1833

Send me more information on what PGMS can do for me.

---

**ADVERTISER INDEX**

<table>
<thead>
<tr>
<th>NO.</th>
<th>ADVERTISER</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>American Cyanamid Co. (Regional)</td>
<td>CV3</td>
</tr>
<tr>
<td>801</td>
<td>Elanco Products Co./Cutless</td>
<td>18-19</td>
</tr>
<tr>
<td>802</td>
<td>ICI Americas, Inc.</td>
<td>15</td>
</tr>
<tr>
<td>803</td>
<td>Mobay Corp.</td>
<td>CV4</td>
</tr>
<tr>
<td>804</td>
<td>Monsanto Co.</td>
<td>2-3</td>
</tr>
<tr>
<td>805</td>
<td>Scotts Proturf, O.M.</td>
<td>12-13</td>
</tr>
</tbody>
</table>

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

---

**GROUNDs MANAGERS**

This Is What PGMS Is Doing For You

If you haven't checked out the Professional Grounds Management Society recently, then you're in for a surprise. We're offering a bundle of new benefits that make joining PGMS more rewarding than ever! Here's what we've been up to and how you can benefit:

- **ANNUAL CONFERENCE AND TRADE SHOW** - The yearly forum bringing together grounds managers, top speakers, and suppliers for the sharing of knowledge and ideas.
- **NEWSLETTERS** - A newsletter is mailed monthly to keep members current on the affairs of the Society and the latest developments critical to successful grounds management.
- **CERTIFICATION** - Voluntary peer review of acceptable competence to enable you to become a Certified Grounds Manager.
- **RESEARCH AND SURVEYS** - Information on operational practices is gathered for dissemination of all members.
- **INSURANCE** - Included in your membership fee of $5,000.00 accident and dismembrment insurance.

No matter how large or small your operation, PGMS is your source for the best, most meaningful grounds management information and help. Your membership investment goes to work for you immediately — that's the PGMS promise. Join now and grow with us!

Clip and mail to:

PROFESSIONAL GROUNDS MANAGEMENT SOCIETY
12 Galloway Avenue
Suite 1E
Cockeysville, Maryland 21030

(301) 667-1833

Send me more information on what PGMS can do for me.

---

**ADVERTISER INDEX**

<table>
<thead>
<tr>
<th>NO.</th>
<th>ADVERTISER</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>American Cyanamid Co. (Regional)</td>
<td>CV3</td>
</tr>
<tr>
<td>801</td>
<td>Elanco Products Co./Cutless</td>
<td>18-19</td>
</tr>
<tr>
<td>802</td>
<td>ICI Americas, Inc.</td>
<td>15</td>
</tr>
<tr>
<td>803</td>
<td>Mobay Corp.</td>
<td>CV4</td>
</tr>
<tr>
<td>804</td>
<td>Monsanto Co.</td>
<td>2-3</td>
</tr>
<tr>
<td>805</td>
<td>Scotts Proturf, O.M.</td>
<td>12-13</td>
</tr>
</tbody>
</table>

This index is provided as an additional service. The publisher does not assume any liability for errors or omissions.
410 - DISEASES & PESTS OF ORNAMENTAL PLANTS
by Pascal Pirone
This standard reference discusses diagnosis and treatment of dis- eases of ornamental plants grown outdoors, under glass or in the home. Easy to understand explanations of when and how to use the most effective fungicides, insecticides and other control methods. $37.95

415 - INNOVATIVE APPROACHES TO PLANT DISEASE CONTROL
by Alan J. Turoeon
Brings together alternative approaches and methods that have potential to control diseases caused by fungi, bacteria and vi-ruses. Major concepts of disease control discussed include biological control systems, their possible mechanisms, potential application and genetic improvement. $52.50

420 - ADVANCES IN TURFGRASS PATHOLOGY
by Joyner and Larsen
Leading U.S. turf pathogens re- port on turfgrass diseases, pythium blights, snow molds, fairy rings, leaf spot of Kentucky bluegrass in Min- nesota, and initial fungicide screening of turfgrass disease resis- tance. etc. Contains new ideas on how to combat turfgrass prob- lems. $27.95

225 - TURF MANAGEMENT HANDBOOK
by Howard Sprague
Practical advice on turf care under both healthy and poor turf condi- tions. Chapters cover turf in cooler and warmer regions, fertilizer use, regular turf care, weed and disease control and special turf problems. Useful seasonal schedules for management of turf areas. $25.25

230 - LAWNS - Third Edition
by Dr. Jonas Venzin and Dr. William A. Torell
Described as a textbook or a prac- tical usage manual, this book has been completely brought up-to- date. Care of lawns and turfgrass, from selection of varieties to main- tenance of established grass is completely covered. $25.95

300 - LANDSCAPE DESIGN: A PRACTICAL APPROACH
by Leroy Hannebaum
Designed as a textbook or a prac- tical usage manual, this book has been completely brought up-to- date. Care of lawns and turfgrass, from selection of varieties to main- tenance of established grass is completely covered. $25.95

305 - LANDSCAPE MANAGEMENT
by James R. Feucht and Jack D. Butler
Planting and Maintenance of Trees, Shrub and Turfgrasses. Discusses the basic principles of cultural man- age of all plant materials in the landscape. The important factors of plant growth, soil and fertilizers, improved planting techniques and new pruning techniques, integrated pest and disease management, spray and equipment calibration and care are all featured. $29.95

310 - LANDSCAPE DESIGN: A PRACTICAL APPROACH
by Leroy Hannebaum
Designed as a textbook or a prac- tical usage manual, this book has been completely brought up-to- date. Care of lawns and turfgrass, from selection of varieties to main- tenance of established grass is completely covered. $25.95

315 - TURFGRASS MANAGEMENT FOR GOLF COURSES
by James Beard
Written by an eminent turfgrass researcher, this USGA sponsored text is an ideal reference and "how to" guide to all phases of turf course design and construction, turf management and its associa- tion with dozens of new drawings. Pro- vides specific recommendations for applying the newest pesticides, fer- tilizers and other materials to combat turfgrass problems. A valu- able reference for diagnosing problems and determining their causes. $42.00

320 - CONTROLLING TURFGRASS PESTS
by Shuttlief, Fermanian, Rendel
New comprehensive guide provides the most up-to-date information available on the identification, biology, control and management of every type of turfgrass pest. $38.00

640 - TURF IRRIGATION MANUAL
by James Beard
A guidebook for engineers, archi- tects, designers and contractors. Keeps pace with the latest develop- ments in turf and landscape irrigation. Specific chapters devoted to rotary sprinkler design systems. Golf course design systems and expanded engineering and refer- ence material. $27.25

630 - TURFGRASS SCIENCE AND CULTURE
by James Beard
Comprehensive text and refer- ence source used in many leading university turf programs. Includes findings of current research compiled from more than 12,000 sources. $42.00

110 - TURF MANAGERS' HANDBOOK - Second Edition
by Daniel and Freeborg
Entirely updated. A practical guide for the turf practitioner. Chap- ters on grasses, growth regulators and diseases have had extensive modification. Innovations resulting from research and practice have been added to reflect the current techniques available for turf managers. $32.95

125 - SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS
by G.W. Bennett, J.M. Owens, R.M. Currigan
Fourth Edition. New chapters on fumigation, urban wildlife, special facilities, plus updated, improved chapters on pesticides, cock- roaches, birds, termites, equip- ment, sanitation, stored product pests and more. Don't be without this updated edition. $46.95 Domestic All Others $60.00

130 - LIABILITY AND LAW IN RECREATION, PARKS AND SPORTS
by Ronald A. Kaiser, J.D.
A fact-filled reference that all recre- ation professionals should have. Covers all aspects of law and liability in recreational and personal injury cases. Contains new ideas on how to combat turfgrass problems. $33.00

150 - LAWN CARE: A HANDBOOK
by J.M. Vargas
Described as a textbook or a prac- tical usage manual, this book has been completely brought up-to- date. Care of lawns and turfgrass, from selection of varieties to main- tenance of established grass is completely covered. $25.95

200 - MANAGEMENT OF TURFGRASS DISEASES
by J.M. Vargas
Identifies turf diseases by de- scription and illustration. Includes a holistic approach to healthy turf and lawns. Presents practical man- agement strategies for the lawns, and athletic fields. Nearly 150 color illustrations. $27.95

220 - TURFGRASS: SCIENCE AND CULTURE
by James Beard
A comprehensive guide to the landscape designer/salesperson. This is a one-of-a-kind guide to the landscape design process. Covers the entire highly competitive field including design analysis techniques and pointers on land forms, specialized business landscaping methods, environ- mental design guidelines, specifications, estimations, bids. $41.00

225 - TURFGRASS MANAGEMENT FOR GOLF COURSES
by James Beard
Written by an eminent turfgrass researcher, this USGA sponsored text is an ideal reference and "how to" guide to all phases of turf course design and construction, turf management and its associa- tion with dozens of new drawings. Pro- vides specific recommendations for applying the newest pesticides, fer- tilizers and other materials to combat turfgrass problems. A valu- able reference for diagnosing problems and determining their causes. $42.00

345 - COST DATA FOR LANDSCAPE CONSTRUCTION 1989
Kathleen W. Kerr, Editor
This latest edition of this standard reference contains the most up-to-date price information for landscaping contractors of all types. Data are presented in an easily understandable format, making it an essential reference for all landscapers and contractors. $35.00

58 LANDSCAPE MANAGEMENT/OCTOBER 1989
Identifying mildew disease

**Problem:** Every year on oak trees we see whitish powdery growth on the lower surface of the leaves. We also see a number of small, black specks present in this area. Is this caused by mites? What can be sprayed to control this? (Ohio)

**Solution:** From your description of the symptoms, the problem you are dealing with appears to be caused by a fungus that causes powdery mildew disease. The black structures you have been seeing are probably not mites, but are the fruiting bodies of the fungus that contain fungal spores. Several different powdery mildew fungi attack oak. These include *Sphaerotheca lanestris*, the most troublesome mildew producer. Others include *Erisiphe trina*, *Microsphaeria alni* and *Phyllactinia corylea*.

An application of fungicides like Acti-done PM, Benlate or Karathane is recommended to manage the powdery mildew disease problems. It is possible that mites may also be present on the same plant. For detecting mites, shake the leaves over some white paper or cloth. If there are many mites, they will fall and begin to crawl on the white surface. Mites have eight legs while insects have six legs. Mites leave a staining mark on the white surface when crushed. Verify this possibility just to be sure.

If the problem is identified to be due to mites, an application of dormant oil during early spring or an application of miticides such as Kelthane in mid-June and again two to three weeks later should help minimize the problem.

Controlling poison ivy

**Problem:** We have a major problem with poison ivy plants in some of our clients’ properties. What is the best way to control these. Can we use Roundup? (New York)

**Solution:** Treatments with amitrol (Amizole, Aminotriazol or Weedazol), a post-emergence herbicide, reportedly provides excellent control of poison ivy. It is a non-selective herbicide designed to be applied onto the foliage of perennial broadleaf weeds like poison ivy. It will be absorbed by the leaves and translocated to the stems and roots. It is very effective against poison ivy. Avoid contacting desirable, non-target plants because it will turn the leaves yellow, white and then brown.

Use amitrol as a spot treatment for perennial weeds like poison ivy in or near nursery crops or landscaping. For best results, treat weeds at full leaf, about four to six feet high, and before blooming.

Check with your county extension agent for clearance to use this product in your area. All registrations for the use of amitrol on food crops, including pastures, have been cancelled. Avoid using it in an area where there is a chance of food or feed contamination. A waiting period of six to eight weeks is required before planting any plant material.

Roundup is also registered for managing poison ivy plants. For managing these apply four to five quarts of Roundup per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Remember that Roundup will be absorbed through actively growing green leaves. Therefore, thorough coverage is necessary. Repeat applications may be needed for good results. Fall treatments should be made prior to leaves losing green color.

Why power rake?

**Problem:** Why power rake, since power raking does little to reduce thatch? (Colorado)

**Solution:** You are right: power raking does little, if anything, to reduce thatch. I don’t believe that any professional turfgrass manager or lawn care professional would be recommending power raking to reduce thatch, except under certain situations.

Those who believe in the misconception that the clippings can contribute to thatch development may perform this. However, power raking might be useful in removing excess dead blades or plants that are present, often due to infrequent mowing. This can occur if the turf is allowed to grow tall before mowing, which deposits excessively long clippings. In this situation, blades will decompose slower than if they are mowed frequently.

Ideally, turfgrass should be mowed whenever growth is ½ inch taller than the recommended cutting height for a particular cultivar. A good mowing schedule and practice will eliminate the need for removing long clippings.

The areas damaged by insect and disease or abiotic stress factors may also be benefited by power raking to remove the dead or matted blades.  

---

Balakrishna Rao is Manager of Technical Resources for the Davey Tree Co., Kent, Ohio.

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