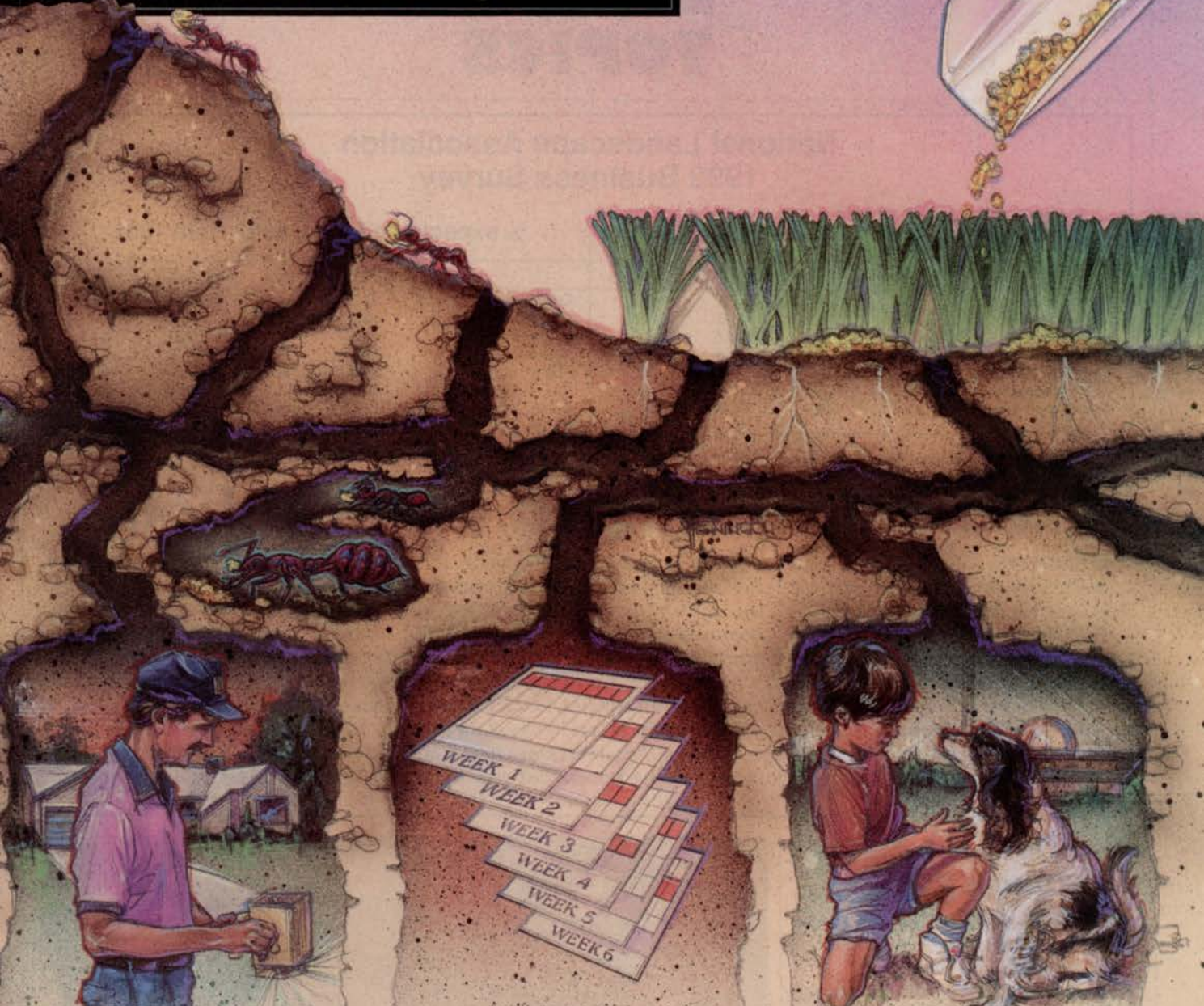


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treatments. So, protect your customers and their property from fire ants. Give them complete fire ant control with the only product specifically formulated to kill the queen. AMDRO. Available in 1-lb. containers, or economical 25-lb. bags.

HOW AMDRO BEATS THE COMPETITION

Active Ingredient	Trade Name	Mode of Action	Low Odor	Low Dust	Ready To Use Broadcast	Toxicity To Birds, Honeybees	Pasture or Rangeland	Leaching Potential	Time Required For Control
hydramethylinon	AMDRO [®]	BAIT Ingestion (Stomach Insecticide)	Yes	Yes	Yes	Low	Yes	Low	7 Days
fenoxycarb	Logic ¹	BAIT Growth Regulator (Stops egg laying)	Yes	Yes	Yes	Low	No	Low	3-5 Weeks
avermectin	Affirm ² Fire Ant Ender ³ Ascend ⁴	BAIT Growth Regulator (Stops egg laying)	Yes	Yes	Yes	Low	No	Low	6-8 Weeks
acephate	Orthene ⁵	CONTACT	No	No	No	High	Yes*	Moderate to High	3-7 Days
diazinon	Spectracide ⁶ Green Light ⁷ (various others)	CONTACT	Yes	Yes	No	High	No	Moderate	Immediate
dursban	Green Light ⁷ (various others)	CONTACT	Yes	Yes	No	High	No	Low	Immediate

(*grazing restrictions apply-see label)



AMERICA'S NUMBER ONE FIRE ANT KILLER.

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HOT TOPICS

National Landscape Association 1992 Business Survey

	% change in business, 1991 from 1990				% expected change, 1992 from 1991			
	NE	SE	Gr. Lks.	Plains	NE	SE	Gr. Lks.	Plains
Overall sales	-9.2	-1.1	-1.3	-0.5	+5.0	+4.9	+14.3	+6.9
New residential	-4.7	-6.9	-1.6	-1.8	+5.8	+4.0	+11.9	+6.1
New commercial	-12.8	-10.5	-10.8	-4.9	+3.6	-10.3	+2.0	-3.1
Res. renovation	-0.9	+2.8	+3.6	+1.6	+6.5	+5.4	+10.3	+7.1
Comm. renovation	-4.7	-1.1	-1.2	-3.3	+2.9	-6.9	+4.1	+0.1
Res. maintenance	+2.7	+3.7	+7.4	+1.4	+9.4	-2.1	+6.7	+3.7
Comm. maintenance	-1.4	+6.9	+12.8	+0.2	0.0	-5.6	+7.4	+4.1

'92 landscape outlook:

Optimism...tinged with caution

WASHINGTON—A National Landscape Association survey projects that 1992 will show improved sales for the industry.

The NLA's annual economic survey of member firms indicates an expected overall increase of 8 percent in landscape sales for 1992 over 1991. The sharpest increases are expected in new residential landscaping (8.1%), residential renovation (8.0%) and residential maintenance (5.3%).

"With increased sales effort and greater emphasis on good management practices, the probability of 1992 resulting in improved sales is good," the NLA told members in its March/April newsletter.

However, last year's actual figures were much less than expected, for only the second time in the 17-year history of the survey. Overall, members predicted an increase of 4.4 percent last year while

business actually *decreased* 3.3 percent from 1990 to 1991.

Hardest hit was new commercial business, off 9.3 percent nationally from 1990. However, nationwide, commercial (+5.3%) and residential (+4.1%) maintenance both showed growth in 1991.

Landscapers in the Great Lakes region are most optimistic, predicting 14.3 percent growth this year.

Government, industry push 'Don't Bag It'

GREENFIELD, Wisc.—This city is cooperating with local industry to introduce a program called "Don't Bag It."

Mayor James Besson, at a news conference in March, encouraged citizens to reuse grass clippings as lawn nutrients rather than bagging them for landfills.

BFI Waste Systems underwrote development costs. A public drawing was held to determine winners of (1) one year's use of Toro Recycler lawn mower and (2) a year's supply of Slo Grow lawn fertilizer.

Ryerson Co. provided the mowers, and Howard Johnsons Enterprises provided the lawn fertilizer.



Greenfield Mayor James Besson (right, at microphone) announces the city's 'Don't Bag It' campaign while local news media record the event.

ELSEWHERE

Effluent water gets a boost, p. 93

NAA airs concerns with VP Quayle, p. 93

Asian gypsy moth could invade U.S., p. 93

New PGR hailed for landscape, golf, p. 94

Golf greens get flush treatment

COLUMBIA, Mo.—Golf greens of the future may offer the final stage of sewage treatment, at least in arid areas, say researchers at the University of Missouri here.

"At present, 10 percent of golf courses in the southwestern U.S. are irrigated with treated domestic sewage," says turfgrass specialist John Dunn. "Within the next 20 years, that should increase to 100 percent."

"Golf greens are ideal for tertiary sewage treatment because the dense mat of grass roots absorbs excess nutrients from the treated effluent," he says.

Dunn and grad student Tom McKay aim to deal with negative public perceptions of recycled sewage water. They are comparing turf treated with both sewage and drinking water. They are also comparing irrigation by sprinkler with irrigation through porous pipes laid under the green.

"It's too early to reach firm conclusions," Dunn says. "But we have found no difference in green quality water since the turf was laid last fall. Only time will tell if we will get problems with the pipes blocking from lime build-up, effluent particles or root hairs."

CLARIFICATIONS

■ Weights of Hoffco string trimmers listed on page 30 of the March issue referred to shipping weights, which include the weights of all accessories. Other equipment listed carrying weights.

■ Another article in that issue incorrectly noted that cyfluthrin has not yet been approved for control of Lyme disease ticks in New York. The insecticide is marketed in two formulations, under the trade name Tempo, by Miles. Its wettable powder was approved for the above use in April, 1991; its 2EC formulation was approved in August.

■ A chart on page 62 of that issue incorrectly noted that Turflon D, Turflon II and Confront herbicides were manufactured by Dow. They are, in fact, manufactured by DowElanco.

■ Lynda Wightman, contrary to what is stated on page 52 of the March issue, is an employee of Hunter Industries, based in San Diego.

LANDSCAPE MANAGEMENT regrets the inaccuracies.



Vice President Dan Quayle (left), NAA executive president Bob Felix.

White paper on tree benefits helps NAA reach top government levels

AMHERST, N.H.—In a brief meeting here in February, the National Arborist Association presented Vice President Dan Quayle with a whitepaper titled "The Importance of Large Tree Maintenance in Mitigating Global Climate Change."

NAA executive president Bob Felix made the presentation, on behalf of the organization's membership.

The research document was prompted by concerns that President George Bush's "America the Beautiful" program focuses

on new plantings and does not adequately address the need to maintain mature, healthy trees.

The NAA has also distributed the whitepaper to the U.S. Congress, state foresters and urban foresters across the nation. The document was funded by a grant from the National Arborist Foundation.

For more info, or to receive a copy of the whitepaper, contact NAA at (800) 733-2622.

AAN says Asian gypsy moths are very real threat to landscape plants

WASHINGTON—Since last November, the American Association of Nurserymen has been working with key members of the U.S. Congress to try and thwart a potential problem with the Asian gypsy moth that could affect the landscape industry.

According to a press release, the AAN's efforts "have been successful, in that the USDA's Animal and Plant Health Inspection Service, in conjunction with the USDA Forest Service, has developed a comprehensive treatment and eradication plan to prevent infestation. We are now working to urge that this important preventive plan be funded."

In 1991, Asian gypsy moths were found on ships in the northwest U.S. The ships had presumably picked up the insects at

Siberian ports of call.

Asian gypsy moth is of the same species as the gypsy moth that was introduced in the U.S. years ago. However, the Asian strain differs in that:

- females are capable of flying up to 65 miles whereas the "North American" female does not fly;

- it appears to feed more readily on a much broader range of plants, and may establish more readily on conifers; and

- it has the potential to spread much more quickly.

According to the AAN's report on the subject, introduction of the Asian gypsy moth here could mean an alteration in wild animal (and endangered species) habitats.

UAP redirects turf activities

SALEM, Ore.—United Agri Products (UAP) restructured its professional turf and ornamental efforts with the formation of United Horticultural Supply (UHS).

All UAP activities in the professional turf and ornamental markets (including UAP Special Products) will come under this new organization. Markets being served by UHS include: commercial lawn care, golf course, landscapers and landscape maintenance, ornamental horticulture, etc.

Initially, UHS will be made-up of six divisions owned and operated by the geographically diverse United Agri Products Independent Operating Companies.

New PGR to be tested widely this summer

GREENSBORO, N.C.—Primo, an experimental plant growth regulator, can manage growth and quality of warm- and cool-season turfgrasses, according to its maker, Ciba-Geigy.

The product was field-tested for the first time in 1991 on 300 acres of turf. It will be sold this season with its recently-approved Experimental Use Permit. Up to 3,000 test acres of turf are planned.

According to Ciba-Geigy, Primo will be especially useful in managing difficult-to-mow areas and to minimize edging along sidewalks, curbs, parking lots, driveways, flower beds and fences; and around posts, storage sheds and trees.

Primo is planned to be labeled for bentgrass, Kentucky bluegrass, red fescue,

tall fescue, annual and perennial ryegrass, bahiagrass, common and hybrid bermudagrass, centipedegrass, St. Augustinegrass and zoysiagrass.

At standard application rates, Primo will provide approximately 50 percent growth reduction for four weeks, Ciba-Geigy's Dr. Doug Houseworth says. With multiple applications, Ciba-Geigy believes that Primo will be able to reduce turfgrass growth the entire growing season—but not more than 2.7 lbs. of Ai/A can be applied per year.

Its active ingredient is cimectacarb.

For best results, Ciba-Geigy says, Primo should be applied to high quality turfgrasses which receive adequate moisture and fertility.

INFO CENTER

Useful literature and video offered to LM readers

ON TURF DISEASES...The "Compendium of Turfgrass Diseases, Second Edition" is now available from APS Press. Detailed descriptions and more than 180 full-color photos (60 of them new) help diagnose and control more than 50 turf diseases. The 128-page softcover book—edited by Richard W. Smiley, Peter H. Dernoeden and Bruce B. Clarke—is \$25 in the U.S. and \$31 elsewhere. To order, send check or money order to PAS Press, 3340 Pilot Knob Rd., St. Paul, MN 55121-2097 or phone (800) 328-7560.

GOLF COURSE PERSONNEL...A sample handbook for setting policy, writing job descriptions, developing pay scales and other golf course personnel management issues is now available from the GCSAA for \$10 (members) or \$15 (non-members). Topics include employment status, work schedules and pay, attendance, standards of conduct and job descriptions. The handbook is available through the GCSAA, phone (913) 832-4480.

HEALTHY TURF..."Healthy Turf Means Healthy Earth," a color brochure from The Fertilizer Institute, is available for \$1.25 per copy. The brochure, which can be distributed to customers, answers questions like "how does one know how much fertilizer to use?" and "are organic fertilizers

safer than commercial fertilizers?" A 10% discount applies to orders of more than 100. To order, send check to TFI, 501 2nd St. NE, Washington, DC 20002.

TURF BENEFITS VIDEO..."This Precious Earth" is a new six-minute videotape program produced by the American Sod Producers Association. In addition to the educational program, a group of four 30- and 60-second public service announcements are included, along with a four-color brochure that complements the video. The video costs \$25. The brochures cost \$75 for 500 or \$250 for 2,000, plus shipping and handling. For more info, contact Terri Berkowitz, at ASPA, 1855-A Hicks Rd., Rolling Meadows, IL 60008; phone (708) 705-9898.

CHEMICAL SAFETY...A new handbook by the Midwest Plan Service aids chemical safety: "Designing Facilities for Pesticide and Fertilizer Containment." Major chapter headings include site selection, system design, worker safety areas, mixing/loading areas, emergency response practices, etc. The book is available for \$15. Phone Art Muehling at (217) 333-9313 or send check to: Plan Service, Dept. of Ag Engineering, 1304 W. Pennsylvania Ave., Urbana, IL 61801. Make checks out to the University of Illinois.

GREENS MOWING...Jacobsen now offers a videotape training guide for the Jacobsen Greens King IV. It is available in Spanish or English from local Jacobsen distributors or by writing Jacobsen division of Textron, 1721 Packard Ave., Racine, WI 53403.

MORE HEALTHY LAWNS...Lofts Seed has created a new, free booklet for lawn care customers entitled "The Grass is Always Greener on My Side." Filled with illustrations and color photos, the 16-page booklet offers tips on selecting seed and mowing and watering. The booklet also offers a \$1 coupon toward Lofts products. For more info, call Mary Anne Rohmann or Krystal Stilwell at (212) 684-6300.

PROTECTING YOUR BUSINESS..."How to Protect Your Business" is now available through the Council of Better Business Bureaus. Price is \$7.95 for the pocket-size paperback edition, \$14.95 for deluxe softcover, plus \$2 shipping and handling. It has three sections: Schemes Against Business, External Crime and Internal Crime. Covered are office supply schemes, bankruptcy fraud, telemarketing crimes, credit card fraud, embezzlement, insurance fraud and more. Send order and payment to: CBBB Publications, 4200 Wilson Blvd., Arlington, VA 22203.



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TECHNOLOGY

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Poly-S technology offers a superior alternative to SCU fertilizers, with extended release, excellent flexibility in release rates, and more predictable response. Each Poly-S fertilizer is a dry, dense, free-flowing, physically homogeneous product specially designed for use with a broadcast spreader.

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It is the most efficient — and cost-effective — turf fertilizer technology ever developed. And it's available *now* — only from Scott.

For more information about Poly-S fertilizers and their performance advantages, contact your Scott Tech rep. Or call 1-800-543-0006.



Growing Better Through Technology

CUSTOMER SERVICE TIPS

Customer Service Training

by Ed Wandtke

■ One method of helping lawn service company employees realize the owner's commitment to quality customer service is to provide specific training. In developing a customer service training program for your company, examine the following:

1. Determine where training is needed. You will need an internal and external written philosophy for your company explaining how you expect customers to be treated. With this philosophy in mind, you will need to identify what aspects of customer service your company needs to be changed.

2. Ask for employee opinion. Ask them where they believe more training is needed in areas of customer service.

Employee participation helps to improve the receptiveness and effectiveness of the training. Encouraging employee input may also help you discover where additional training is needed.

3. Make training a pleasant experience. Avoid developing a customer service training program as the result of employee and customer turnover. Putting employees under pressure to perform improved customer service often backfires. A relaxed atmosphere of both training and implementing improvements in customer service will result in more effective benefits to the company. Training geared to your employees' ability will be more effective in the long run.

4. Make training interactive and participatory. Employees need to be taught effective customer service techniques and have them applied to problems they deal with on a day-to-day basis. Let them try out what they've learned, by presenting them with specific problems in the class.

Customer service training needs to be provided for every employee in your company. Making this commitment will increase both employee and customer retention.

GREEN INDUSTRY EVENTS

MAY

21: Barney Barron/Turfage Athletic Field Clinic, Recreation Center, Commerce City, Calif. Contact: Dan Melchior, L.L. Johnson Distributing, 4700 Holly St., Denver, CO 80216; (303) 320-1270.

JUNE

10: Lofts Field Day, Lofts Seed Research Farm, Chimney Rock Road, Martinsville, N.J. Contact: Lofts Seed at (800) 526-3890 or (908) 560-1590.

12-13: Florida Nursery Growers Association annual meeting, Indian River Plantation, Hutchinson Island, Fla. Contact: FNGA, 5401 Kirkman Road, Suite 650, Orlando, FL 32819.

14-17: AABGA annual meeting, Botanical Gardens & Arboreta of Ohio, Columbus. Contact: C.W. Eliot Paine, Holden Arboretum, 9500 Sperry Road, Mentor, OH 44060; (216) 256-1110.

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Pennsylvania's Plant Shows bring you a full season of trade shows, seminars, products demonstrations and displays for our growing industry.

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West
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Expo Mart, Monroeville, PA

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Circle No. 106 on Reader Inquiry Card

JOB TALK

Landscaping as a marketing tool

It's the trees, shrubs, turf and seasonal color that bring visual 'life' to a property.

by Andy Hull

■ Scientific studies show that office workers have more positive attitudes and outlooks when creative landscaping sets a tone of order and tranquility. Their motivation is higher; their performance is greater; and they are more efficient. As a parallel, there is less employee turnover, more company loyalty, and greater corporate effectiveness and profitability over the long haul.

In such circumstances, intelligent landscaping becomes a "living" relief valve for the firm's personnel. Compared to other efforts and investments, imaginative landscaping can be reasonably priced and easily acquired.

Consider these not-so-hypothetical scenarios. With slightly less effort, a modern office park's foliated courtyard with pool and fountain might, alternatively, have remained a vacant, weed-infested lot. A commercial building's gracefully curved, graveled entrance, with a cozy seating arbor, could have just as well become a non-descript concrete slab. A suburban shopping mall's flagstone, fern-bordered drainage swale—often creating an intriguing wet-weather creek—might have easily been supplanted by a masonry trench with rusty mesh covering. In less thoughtful hands, the orderly treelines and manicured hedge rows that frame a medical complex could have just as well succumbed to an asphalt apron.

Instead of neglected, ho-hum surroundings, the exteriors of these structures have become harmonious collections of "value-added" amenities: places where a computer programmer can take a break; where a businessman can pause for a breath of fresh air and fresh point of view.

Sell the beauty—Well-ordered, visually arresting landscaping also gives customers, prospects, suppliers and visitors a more positive impression of the building's developers/owners and clientele. The first impression is often the lasting one—the long-held attitudes that form about a company's corporate culture, its sense of order and decorum, its taste level and operating style.

Yet, over the past 20 years of land planning, landscape design, landscape installation and maintenance for the 16,000 apartment homes of our parent company, Post Properties, we've discovered even more benefits. For Post's apartment residents, the lush landscapes and colorful year-round foliage stands as a corporate trademark. While a beautiful label cannot sell an empty package,

a quality product assuredly cannot sell itself with an ugly one.

Strategically placed trees not only provide protective shade from the sun, but their foliage serves as air filters and purifiers. Properly installed ground covers and turf tend to filter rainwater impurities before they reach the ground water systems.

Using existing surroundings—In developing Parkwood Circle of Atlanta, the main office facility was strategically placed near the bottom center of the tract to accommodate the semblance of a white water creek tumbling past its entrance into a manmade lake below. A nearby hillside was deeply graded to allow the partial subterranean placement of a three-level parking plaza. The front of the structure was planted with lush foliage which hung downward in a Tivoli Gardens effect. The back wall was literally buried into the hillside.

Other hilly terrain was systematically terraced and implanted with culverts and drainage swales which prevented surface flooding and erosion. A mile-long semi-circular roadway was strategically placed to transverse the inner borders of the development, with two landscaped entrances/exits on Powers Ferry Road.

The entire property was planted with a profusion of trees, shrubs, ground covers and seasonal color selected to visually enhance the natural appeals of the terrain.

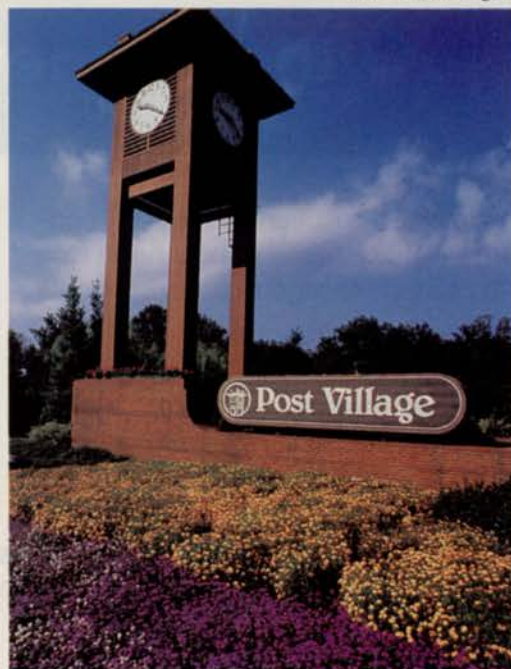
As the newly-controlled surface water filled the lake, a recirculating pump keeps the water flowing through the shoals at the building's entrance, providing an intriguing focal point for tenants and visitors.

Added value—Apart from the resale value that landscaping adds to real estate, it also puts the property—and your role in it—in a more positive public light. These are the types of properties pointed out by city fathers on VIP tours, the landmark references used in media reports on local happenings, the photos in Chamber of Commerce catalogues.

In these associations you become a community booster, an environmentalist, a concerned corporate citizen whose efforts to "put something back" nets you even more.

—The author is vice president of Post Landscape, Atlanta, Georgia

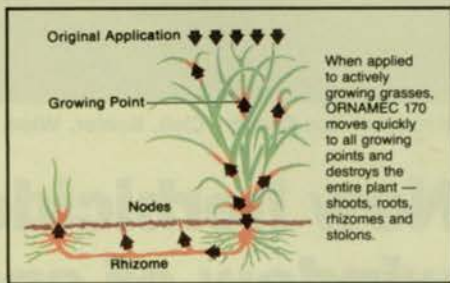
Beautifully landscaped property makes a good first impression on any potential buyers, tenants and visitors.





The above photo, taken in Birmingham, Alabama, is indicative of the landscaping beauty spots that are now economically feasible, thanks to Ornamec 170.

Photo, top right, shows a landscaper's nightmare, where Ornamec 170 could save the day. Schematic drawing shows how Ornamec 170 takes all the fight out of quackgrass.



Introducing the new, improved **Ornamec[®] 170** the ultimate over-the-top post-emergent grass herbicide

We have specifically formulated, packaged and priced the new Ornamec 170 to fit the needs of landscapers today. Read how it now further eases your work and reduces your costs.



Everett Mealman,
Chairman and
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When landscapers talk . . . we listen. You said you wished that Ornamec had its own built-in non-ionic surfactant; that it was packed in a variety of sizes to fit your needs; and was priced to help you manage inventory costs.

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■ Spray it over the top of more than 400 ornamentals and flowers without danger



of plant injury. Clean out nearly all of the major species of unwanted grass, including tough perennials such as bermudagrass, quackgrass, seedling and rhizome johnsongrass and torpedograss, along with barnyardgrass, crabgrass, and foxtail.

■ It's packaged in gallons, quarts, and 10-ounce sizes. The quart makes up to four gallons of spray solution, ideal for back-pack units. Using the 10-ounce size you can mix up a gallon and a half of spray solution, adequate for approximately 1,500 square feet of coverage. It is so convenient you can carry it with you at all times; and if you happen upon a place where ugly grassy weeds are invading one of your beauty spots, you can easily mix up a sprayer full of Ornamec 170 and clean it up right now!

Why tie up your money in large inventories when job-sized containers of Ornamec 170 are now available? With only about \$3.50 or so invested in the 10-oz. size, can you afford not to check it out?

**This \$95-Value
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- Large fill opening
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To get this \$95.00-value SP-1E Back-Pack Sprayer for only \$49, buy one gallon, four quarts, or a case of twelve 10-oz. bottles from your distributor between now and July 31, 1992. Limit one offer per customer. Available through participating distributors or direct from PBI/Gordon with \$5.00 shipping and handling. To order direct, send proof of purchase and your check for \$54. Mail to PBI/Gordon Corporation, P.O. Box 4090, Kansas City, MO 64101. Delivered via UPS. No requests honored after August 30, 1992. Offer good while supply lasts.

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GREEN INDUSTRY SHOWCASE



Blackwolf Run Country Club, Kohler, Wisc. shows the efficacy of Dimension herbicide when used for crabgrass control.

New herbicide has wide window of application

Many herbicides are available to control crabgrass and other annual grasses in cool-season turf. Until recently, however, golf course superintendents and lawn care operators have often had to compromise weed control for turf safety.

Narrow application windows have compounded this problem. The registration last summer of Monsanto's Dimension turf herbicide by the Environmental Protection Agency will, the company believes, make the product a welcome tool in the arsenal against weed control.

Dimension is formulated as a 1 lb. active ingredient per gallon emulsifiable concentrate (IEC). According to Monsanto, Dimension is part of a new class of herbicide chemistry developed by the company.

The active ingredient, dithiopyr, enters plants through crowns, roots and shoots, inhibiting cell development and growth. The major site of physiological activity is within developing plant meristems found in roots and shoots of susceptible plants.

Prior to registration by the EPA in June 1991, the herbicide had undergone several years of extensive laboratory and field testing. Under an Experimental Use Permit (EUP), dithiopyr was examined by major universities and tested in commercial field trials across the United States.

Use for pre-emergence control—Applied as a pre-emergence control, dithiopyr controls both large and smooth crabgrass as well as other annual grass species such as barnyardgrass and foxtail. Broadleaf weeds controlled include chickweed, shepherdspurge, corn speedwell,

henbit, prostrate spurge and yellow wood-sorrel.

Works in competitive turf—According to Monsanto, Dimension has proven effective when applied as a pre-emergent to control goosegrass in the southern U.S. In highly competitive turf, dithiopyr provides good goosegrass control at a rate of 2 qts. per acre. Less consistent results may occur with heavy goosegrass pressure at the 2 qt. rate. Dimension controls many grasses and broadleaf weeds, but research has focused primarily on pre-emergence control of crabgrass. At the recommended rates of 0.25 lbs. (1 qt.) to 0.50 lbs. (2 qts.) active ingredient per acre, trials have shown preemergence crabgrass control consistently averaging above 90 percent.

In 1989 trials at Penn State, dithiopyr provided control of 96 and 97 percent when applied as a pre-emergent, at rates of 0.38 lb. ai/A and 0.50 lb. ai/A, respectively, with data collected 145 days after treatment. Performance was decreased only slightly when the product was used at a rate of 0/25 lb. ai/A. In trials at the University of Massachusetts, the herbicide provided more than 90 percent control of smooth crabgrass at the 0/25 lb. ai/A rate in studies done from 1987 to 1990. Trial applications were made from April 20 to May 10 during those years.

Post-emergence applications of Dimension can also be effective, says Monsanto, and it sites studies at the University of Massachusetts. There, 90 percent control of treated crabgrass was achieved in the one- to four-leaf stage, with 1-1/2 quarts (0.38 lb.) to 2 quarts (0.5

lb.) of product per acre. Control dropped significantly at this rate when dithiopyr was applied alone to tillering crabgrass 2 to 4 inches tall with multiple plants.

University rooting safety studies have shown dithiopyr does not affect established turfgrass roots. In these studies, turfgrass roots were harvested, weighed and measured after application of the product.

Research at the University of Maryland, conducted on "Palmer" perennial ryegrass, confirmed the safety of dithiopyr to root systems. Dry weights for roots harvested 30 days after a 0.5 lb. ai/A treatment with dithiopyr were 171 milligrams. When roots were collected 60 days after treatment, root weight decreased to 158 milligrams. Trials on "Penncross" creeping bentgrass, conducted at the University of Maryland, also supported the rooting safety of Dimension.

In those trials, roots of turfgrass treated with dithiopyr at a rate of 0.5 lb. ai/A had root dry weights of 96 milligrams 60 days after treatment.

Untreated turfgrass roots yielded a weight of 82 milligrams after a 60-day period.

Opening the application window—Dimension can be applied alone for both pre- and post-emergence crabgrass control. This flexibility, characterized by its early post-emergence activity and long residual control, combines to stretch the application window.

Monsanto reports very good residual control. One application at a 0.5 lb. ai/A rate controls crabgrass and other weeds for the entire season.

Data from Massachusetts indicates that dithiopyr will control crabgrass above the 90 percent level for six months in established Kentucky bluegrass and perennial ryegrass turf.

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