

"This Baby Will Steal Your Heart."

"When you put as much into something as I have with this new 30-H, it gets close to you. But I think it's the kind of machine you're going to love. It's got a Yanmar diesel that turns out 30 horses for all the power you'll ever need. The 72" deck gives you the big cut you want for wide area mowing. Talk about smooth. The hydrostatic transmission really gets the job done. And our special rear-wheel steering leaves a "0" uncut circle. Naturally, the 30-H has all the dependability we build into every Gravelly. Let me tell you, this baby will steal your heart."

Ask your local Gravelly dealer to introduce you to the powerful, new 30-H today. **GRAVELLY**

Larry Miller

Larry Miller, Director of Engineering
Gravelly International, Inc.
Clemmons, North Carolina

**Fall In Love
With A Gravelly**

Gravelly International, Inc., P.O. Box 5000, One Gravelly Lane, Clemmons, NC 27012 • 919-766-4721 • Telefax: 919-766-7545

Circle No. 221 on Reader Inquiry Card

Now! Affordable post-emergent control of Crabgrass & Nutsedge plus the broadleaves you get with Trimec® HERBICIDE

Thousands of your fellow turf-management pros tested Trimec® Plus Herbicide last year. Read how you can profit from their experiences with this new herbicide that is labeled for Kentucky bluegrass and Bermudagrass:

"Sometimes things are so obvious that they take you by surprise." No, that's not Yogi Berra double talk . . . It's the essence of what so many of our turf friends said when they sampled Trimec Plus last year.



Everett Mealman
President
PBI/Gordon Corporation

had already purchased to use on the goosegrass of a newly seeded driving-range tee at the Overland Park Golf Course.

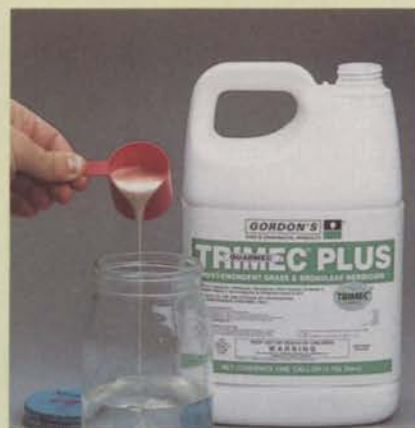
"You remember the weather last year," said Sandy, "so you won't be surprised to learn that,

Listen to Sandy Queen, Certified Superintendent of Golf for the city of Overland Park, Kansas. "The minute I read the Trimec Plus label, I said to myself, Hey, this will work! I just know it will!"

It was in August of 1988 when Sandy saw the Trimec Plus label and the first thought that came to his mind was to test it against a \$250.00-a-gallon post-emerge he

even though a pre-emergent had been used, the tee was loaded with goosegrass and crabgrass. We sprayed half of it with the super expensive exotic and the other half with Trimec Plus, which I believe costs \$27 a gallon and, based on the rates we used, cut our cost per acre in half.

"The super expensive exotic only



New free-flowing formulation: Active ingredients are in a stable, uniform suspension that is as easy to work with as any other Trimec Complex.

got the young goosegrass. It did virtually nothing on the mature plants. But that one application of Trimec Plus virtually cleaned out all the grassy weeds as well as a good deal of yellow nutsedge that was also immune to the more costly treatment."

We'll tell you what Sandy Queen saw on the Trimec Plus label that made him so sure it was a winner, but first, here are a few more comments from your peers.

Works with no burning or discoloration

Russell Kestler, who owns Rus-

Below is a polaroid showing the goosegrass control of brand A, vs. Trimec Plus. At left in photo is August Leitzen, Superintendent of Overland Park Golf Course, with Sandy Queen, Certified Superintendent of Golf for the city of Overland Park, Kansas.





1) Tom Tomlinson, left, of Lawn Doctor in Trumbull, West Redding, Connecticut with two of his drivers, Gary Schwarz (center) and Matt Werthmann. Tomlinson reports excellent results with Trimec Plus on yellow nutsedge.



2

2) Russell Kestler, of Russell's Landscaping, Malverne, N.Y. Kestler used Trimec Plus to control crabgrass in 85° temperature with very good results and no burning or discoloration.

sell's Landscaping of Malverne, New York out on Long Island, said, "We used Trimec Plus last season on approximately 140,000 sq. ft. of residential turf that was loaded with crabgrass. We got excellent results with just one application — and there was no discoloration or burning of the turf, even in August."

Tom Tomlinson of Lawn Doctor in West Redding, Connecticut used it on over 40 lawns last year to clean out yellow nutsedge and crabgrass. "The results were excellent," said Tomlinson. "Trimec Plus totally cleaned up an unusually heavy infestation of nutsedge and crabgrass in spite of erratic and difficult weather conditions, and in most instances only one treatment was needed."

"And guess what," continued Tomlinson. "Trimec Plus also cleaned up our clover problems."

After listening to Tomlinson, we almost think we should have named our new herbicide Trimec Plus-Plus: nutsedge *plus* crabgrass, *plus* broadleaves, *plus* economy.

Why Trimec Plus is so efficient

Now, back to what Sandy saw on the Trimec Plus label that got his enthusiasm up — it was MSMA as an ingredient in a new Trimec Complex. As a Certified Superintendent

of Golf, Queen is quite naturally a dyed-in-the-wool user of Trimec and, of course, he has had extensive experience with MSMA.

He knows that MSMA is surely one of the most effective herbicides for use on grassy weeds and sedges, but that it has a major flaw. To get enough of it into a grassy weed to kill it requires repeated applications, or so much of a wetting-and-penetrating agent that burning and discoloration will occur.

And he also knows that Trimec has a unique eutectic characteristic that gives it unparalleled penetrating power.

A new Trimec Complex

So, when MSMA is locked into a Complex with Trimec — which is precisely what Trimec Plus is — you have a superior system for delivering the MSMA to grassy weeds such as crabgrass, dallisgrass, barnyardgrass and nutsedge — and, of course, the delivery system itself, Trimec, is the undisputed number one post-emergent broadleaf herbicide for ornamental turf in all the world!

Trimec plus MSMA. But, wait! Remember that word, *Complex*.



1217 WEST 12th STREET
P.O. BOX 4090
KANSAS CITY, MISSOURI 64101



Controls Ground Ivy



Controls Nutsedge



Controls Oxalis



Controls Spurge



Controls Crabgrass

Trimec Plus is not a tank mix of Trimec and MSMA. Trimec Plus is a specially compounded amine complex of 2,4-D, MCPP, Banvel® and MSMA . . . in a stable, uniform suspension that is as easy to work with as any other Trimec Complex.

You'd have to buy at least two or three other herbicides to do all of the things that Trimec Plus, alone, will do — control crabgrass; control yellow nutsedge; control the widest spectrum of broadleaves.

Sprayer offer: For details on how you can receive a \$100-value SP-1 Back-Pack Sprayer for only \$35 when you buy Trimec Plus, call our Sales Service Department.

Toll-free 1-800-821-7925.
In Missouri, 1-800-892-7281.

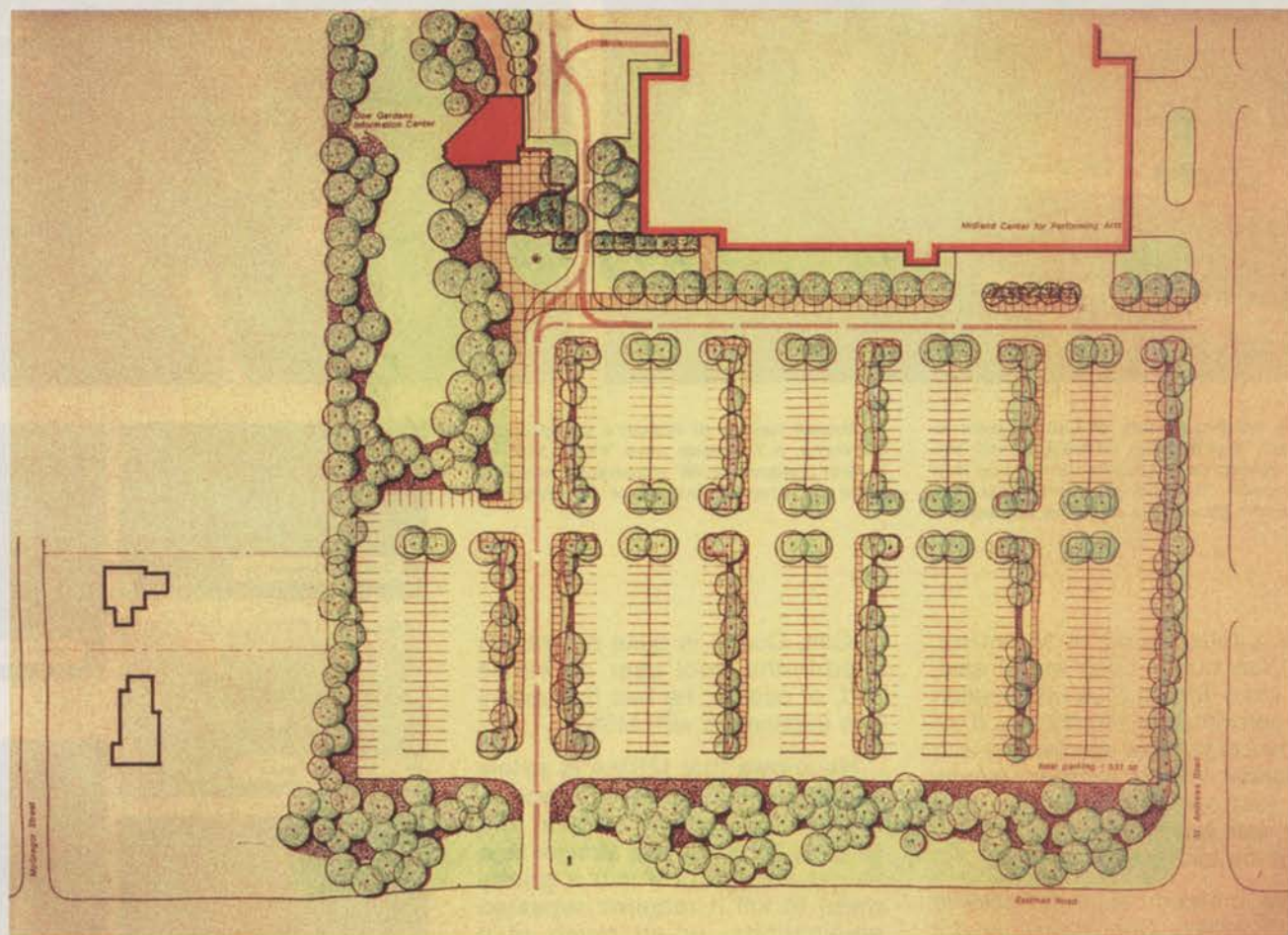
TRIMEC[®] PLUS

HERBICIDE

Trimec® is a registered trademark of PBI/Gordon Corporation.

Banvel® is a registered trademark of Sandoz.

© 1989, PBI/Gordon Corporation.



LOW-MAINTENANCE PARKING LOTS

A noted horticulturist tells landscapers how to create functional and cost-effective parking lots by using 'holistic' plants.

by Doug Chapman, Dow Gardens

The ecological approach to designing parking lots can be interesting, colorful and help reduce maintenance costs.

Recently, the parking lot for the Dow Gardens and the Midland Center for the Arts was re-designed. It was adjusted to accommodate 600 parking spots from its original 380. Developing an area with that much asphalt meant that several new objectives had to be met.

The first was simply increasing the number of parking spaces. This had to be met while not detracting from the building architecture of the two organizations the parking lot serviced.

The second objective was continuous traffic flow. With this in mind, two

entrance/exits were developed, essentially as far apart as possible, so that the traffic would not overflow to the streets adjoining the entrance to the Gardens.

Creating illusion

A primary objective was to create an illusion that the lot contains only 50 to 80 parking spaces. In doing this, we developed small cells, or individual parking lot sections (for example, red, blue, green-coded sections). Surrounding these areas were significant plantings of trees, shrubs and perennials, creating a visual block. At no point during the growing season would visitors be able to see the entire expansiveness of the parking area.

Another objective was to create a sense of "arrival" at the gardens and art center. This was accomplished by heavily planting in these large (14- to 20-foot wide by 100- to 200-foot deep) planter beds, while allowing visitors to see the entrances to the organizations. In planting these, we tried to create open screening at the entrance drive for the Dow Gardens with dense east-west visual block to reduce the impact of such a large parking lot.

Blocking areas

A new adjustment was to de-emphasize the art center's loading dock at the entrance to the Dow Gardens. This objective was met by curving the road back to this service area. Further,

For The Golf Course Superintendent Who Has Everything.



RED THREAD:
2 oz./1,000 sq. ft. every 14-21 days.



POWDERY MILDEW:
1-2 oz./1,000 sq. ft. every 14-28 days.



SNOW MOLD:
4 oz./1,000 sq. ft. applied late fall.



RUST:
1-2 oz./1,000 sq. ft. every 14-28 days.



ANTHRACNOSE:
1-2 oz./1,000 sq. ft. every 14-28 days.



BROWN PATCH:
2-4 oz./1,000 sq. ft. every 10-21 days.



STRIPE SMUT:
1-2 oz./1,000 sq. ft. applied late fall
or early spring.



SUMMER PATCH:
4 oz./1,000 sq. ft. applied April-June, or
according to local recommendations.



DOLLAR SPOT:
1 oz./1,000 sq. ft. every 28 days.

Only Banner® lets you prescribe just the right preventive treatment for so broad a spectrum of turfgrass diseases. For even more helpful information, contact your turf products distributor.



Circle No. 105 on Reader Inquiry Card

plantings were installed to create a year-round screen.

The last objective—and most significant from the horticultural point of view—was to develop an ecological home for the plantings. This ecological approach meant that we were going to create a landscape that would have reduced maintenance yet healthy plants by planting them in conditions for which they are suited. The ecological approach is analogous to a holistic approach in human health.

Diverse plantings

After reviewing the general literature, we found research on street trees in urban conditions that was conducted at Cornell University. It stated that if planting areas were increased in size so that multiple numbers of trees or shrubs could be planted in them, the plants seem to flourish when a forest situation or favorable micro-climate is created.

Further, we had to look at plant communities for diversity, be they pioneer or climax trees, understory shrubs or perennials. We wanted individual low maintenance gardens, while not having simply turf under the trees.

So the entire area was excavated down four feet. Underground drains were installed. (The Midland area is essentially the site of an ancient lake bottom and, therefore, heavy clay.) Once the underground drains were put in, two feet of sand was spread throughout the area and compacted. In the parking areas, gravel was installed, compacted and then the asphalt surface was applied. In the planter areas, the final two feet was filled with sandy-loam.

The planter islands are essentially multiples or mirror images of each other. They are either wide planting islands, 100 to 200 feet in length, or they are small planters, with a single tree and perennials.

In the smaller areas, where the single tree and perennials were planted, we put single trees of *Ulmus parvifolia* (lacebark elm), *Acer campestre* (hedge maple) or *Syringa reticulata* (Japanese tree lilac). Surrounding these trees a groundcover was used, in each case, a different cultivar of *hemerocallis* to create summer color. Further, we wanted herbaceous perennials that would die to the ground and, therefore, not be impacted by snow setting on top of them.

In the long planter islands, unique

plantings were developed. For example, where honeylocust (*Gleditsia triacanthos inermis* "Skyline") was used, underplantings of fragrant sumac (*Rhus aromatica*), beach rose (*Rosa rugosa*), little princess spirea (*Spiraea japonica* "Little Princess") and bush cinquefoil (*Potentilla fruticosa*) were planted.

Herbaceous perennials

Further, as we moved closer to the edges, herbaceous perennials were integrated. These included such things as yarrow (*Achillea millefolium*), butterfly weed (*Asclepias tuberosa*), astilbe (*Astilbe chinensis* "Bridal Veil"), painted daisy (*Chrysanthemum coccinea*), blue lyme grass (*Elymus arenarius*), geum (*Geum quellyon*), showy stonecrop (*Sedum spectabile*), speedwell (*Veronica spicata*), and shasta daisy (*Crysanthemum maximum*).

In other planter areas, shade situations were developed. Climax trees, such as sugar maple (*Acer saccharum*), Norway maple (*Acer platanoides*) and red oak (*Quercus rubra*) were planted, with understories of arrowwood viburnum (*Viburnum dentatum*) and blackhaw viburnum (*Viburnum prunifolium*). A

Remember when you had to power rake THATCH?



Research at Michigan State University rated Bio-Groundskeeper for Thatch Reduction® very effective for reducing thatch. The easy-to-apply liquid is especially attractive for commercial application: ALL NATURAL, EASY APPLICATION, in-tank mixing with fertilizers or herbicides, no fear of moisture damage, COST SAVINGS.

EARLY ORDER PROMOTION
**AUBURN
 SPORTSWEAR
 JACKETS**
 Ask your distributor
 salesperson how to get them
FREE
 or call this toll free number
1-800-383-4081

**BIO
 GROUNDS
 KEEPER®**

For
Thatch Reduction

KLM Bio-Systems, Inc.
 10700 Normandale Blvd.
 Bloomington, MN 55437
 612-884-4081 1-800-383-4081

DISTRIBUTORS

Terra International, Inc.
 Montgomery, AL
 Ag Turf Chemical
 Brampton, Ont., Can.
 Cameron, Co.
 Cathedral City, CA
 Wilbur Ellis
 Chula, Vista, CA
 Turf Tech
 Sacramento, CA
 SAJ Turf Products, Inc.
 Federal Heights, CO
 The Charles C. Hart
 Seed Co.
 Wethersfield, CT
 Odessa Natural
 Enterprises
 Odessa, FL
 DuCor Chemical Corp.
 Orlando, FL
 Grass Roots Turf
 Des Moines, IA
 Professional Turf
 Specialties
 Champaign, IL
 Turf Products Ltd.
 West Chicago, IL
 Arthur Clesen, Inc.
 Wheeling, IL
 Cory Orchard Supply
 Inc.
 Indianapolis, IN
 Allen County Co-op
 Assn.
 New Haven, IN
 Egypt Farms
 White Marsh, MD
 Yexas, Inc.
 So. Portland, ME
 Benham Chemical Co.
 Farmington Hills, MI

J. Mollema & Son, Inc.
 Grand Rapids, MI
 Turfgrass, Inc.
 South Lyon, MI
 Tri Turf
 Traverse City, MI
 Turf Supply Co.
 Eagan, MN
 North Star Turf Co.
 St. Paul, MN
 Eastern Turf Equip. Co.
 Fayetteville, NC
 Turf Specialties
 Hooksett, NH
 Seacoast Lab. Inc.
 Dayton, NJ
 All County Fairway
 Supply
 Dix Hills, NY
 Green Pro Services
 Hempstead, NY
 Bissett Nursery Corp.
 Holtville, NY
 Forrest Lytle &
 Sons, Inc.
 Cincinnati, OH
 Lebanon Chemical
 Lebanon, PA
 Fisher & Son
 Malvern, PA
 Allegheny Lawn Products
 Wexford, PA
 Steve Regan Co.
 Salt Lake City, UT
 Wilson Feed & Seed Co.,
 Inc.
 Richmond, VA
 Fran-Cher Chemicals,
 Inc.
 Longview, WA
 Leas Green Meadow, Inc.
 Washington, D.C.

Circle No. 132 on Reader Inquiry Card



Professional turf performers.



First-rate disease and weed control demands a professional's touch. And here are the Turf Care products that have what it takes.

Daconil 2787.* The cornerstone of a professional spray program. Daconil 2787 is economical to use and the most effective, broadest-spectrum turf fungicide on the market. Controls 12 major turfgrass diseases. Available as a flowable or wettable powder formulation.

Daconil 2787* WDG. A new water-dispersible granular formulation that is virtually dust-free. Pouring and mixing are fast and easy. The 5-lb. reclosable container means better handling, storage and disposal.

Dacthal.* The preemergence herbicide that consistently delivers superior broad-spectrum control of crabgrass, spurge and 22 other tough annual grasses and broadleaf weeds. Available as a flowable or wettable powder formulation.

Daconate* 6. The proven postemergent herbicide. Highly effective against pesky weeds such as crabgrass. (Sold as Bueno* 6 in western states only.)

2 Plus 2 (MCPP + 2,4-D Amine). As effective as it is economical against more than 20 hard-to-kill broadleaf weeds such as clover and dandelions. Contains no dicamba.

Frigate* adjuvant. The only product specifically formulated to enhance the performance of Roundup* for control of perennial and annual weeds. For turf renovations and non-cropland use, too.

When it comes to turf care, you'll see the difference in the professional's touch.

Fermenta ASC Corporation,
5966 Heisley Road, P.O. Box 8000,
Mentor, OH 44061-8000.

The Turf Care® pros.

*Roundup is a registered trademark of Monsanto Company. Always follow label directions carefully when using turf chemicals.

Circle No. 121 on Reader Inquiry Card

border planting of light shade herbaceous perennials came to the edge of the planters.

Year-round color

In using this approach, we were able to plant areas that would not need long-term irrigation or mowing. These areas would be colorful spring, summer and fall, yet the plants would not have to be irrigated or pesticides applied because they were put in their correct ecological niche.

This type of planting just became more exciting as we installed it.

In the large planter bed, the soil area was cooler, the rootzones were cooler, moisture was conserved, yet plants that were compatible with each other were planted (companion plants). This first year a significant amount of irrigation, at least every seven to 10 days, will be needed. We anticipate that amount for the establishment year only.

Comfortable walks

The intent, then, is to present the Gardens, breaking up this huge sea of asphalt and yet creating an illusion of being in a park. To add to this illusion, we installed several walk areas 42 inches wide. These were wide enough

for one person to comfortably walk. They gave us opportunity to be sensitive to the needs of the pedestrians, getting one out of the flow of traffic. Further, we were able to install small enough walks to give visitors the feeling of an intimate garden path.

The final part of this parking lot garden is, of course, lighting. The lighting was designed to create several images. Large-area lighting—but not as bright as daylight—used large, 24-foot metal halide fixtures.

Up-lighting was placed in the planter beds. This not only provides light at the perimeter but also accentuates the plants' habit growth. As the plants continue to develop, this up-lighting will have more and more biomass to reflect against, thus increasing its effectiveness.

A garden stroll

Bollards were placed along the walkways for an intimate feeling of walking down a garden path. These were only 12 inches in height.

The final illusion was to develop facade lighting for the buildings. This gave the patrons the feeling of a new parking lot, a new garden, and new buildings.

This kind of a project can only be

developed in a team approach. We put together the team of Jack Lee, architect and planner from Dow.Howell.Gilmore Associates; Don Hogue, electrical engineer from Dow.Howell.Gilmore Associates; John McPeak, contractor, Fisher Contracting; and Doug Chapman, horticulturist at the Dow Gardens. It certainly took each one of the principles cooperating as a team to complete the project.

We feel this blend of design, function and biologically sensitive landscape development is the key to a more people-friendly, aesthetically-pleasing parking lot.

Some suggest in landscape architecture that geometric form is becoming paramount in the landscape. I would like to say maintenance costs, landscape health and design must go hand in hand.

Horticulturists feel that the plant health and cost of landscape maintenance are paramount. Further, as resources become more limiting, the ecological approach to design and maintenance makes sense (cents). **LM**

Douglas J. Chapman is horticulturist-administrator at The Dow Gardens in Midland, Mich., and an editorial advisor to **LANDSCAPE MANAGEMENT**.



NEW TERRITORIES OPEN — ASK ABOUT DEALERSHIP OPPORTUNITIES

PROMARK TURF AND PAVEMENT VACUUMS

Towable and Self-Propelled Models For All Your Maintenance Needs

- Aeration core clean up
- Maintain sidewalks and carpaths
- General debris clean up
- Pick up leaves and freshly mowed grass
- Parking lot maintenance

Remember to ask
about Pro Lease!



330 9th Avenue
City of Industry, CA 91746
(818) 961-9783 • FAX (818) 961-2307

Circle No. 155 on Reader Inquiry Card

Turf Blazers

JUST BUILT BETTER



LOOK closely at two of the reasons we build them better.



Grease can be applied at the top of the blade shaft. Deck cover is easily removable.



All Steel Spindle, 1/4" blade shaft with 1/4" blade offer superior strength and are the *heaviest* in the industry.

Rugged and durable, the Turf Blazer Commercial Rotary delivers day in and day out dependability. Provides high production and increased profits for your business. See your Turf Blazer Dealer for a test drive on your turf.

Manufactured by



18155 Edison Avenue
Chesterfield, Mo. 63005
Circle No. 280 on Reader Inquiry Card

Reroute roots and the ugly side of yo

Introducing Typar® Biobarrier™ root control system.

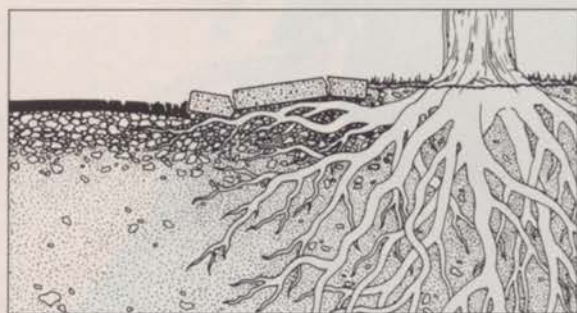
Give unsightly roots a new direction in life. Down. With new Biobarrier, the advanced root control system that sends your maintenance costs in the same direction.

Biobarrier combines two of the most effective, longest-lasting elements in root control. One is Treflan®, one of the most proven herbicides in the country, featuring new controlled-release pellet technology. The other is Typar® fabric, made with rugged polypropylene geotextile that's porous enough to let air and water through but holds the Treflan pellets in place.

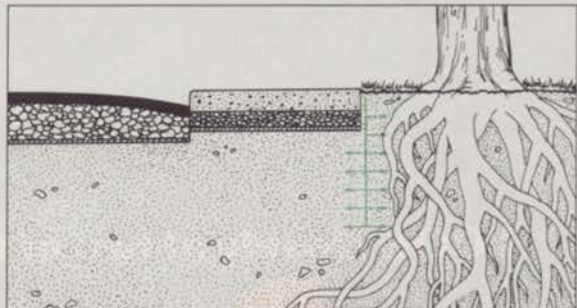
Together, they reroute roots without harming your trees and plants. And preserve the beauty of your landscaped areas — golf greens, cart paths, sidewalks, curbs, walkways, parking lots, swimming pools, gardens and others — for years to come.

Forget roots for 15 years.

Underground, Biobarrier sets up a solid rootproof zone that spans one to two inches on each side of the fabric. That's the Treflan controlled-release vapor zone. A zone so powerful, it repels roots at a controlled rate for 15 years or more.



Top Without Biobarrier, tree roots penetrate paved surface and aggregate base, causing unsightly cracking and heaving.



Bottom With Biobarrier, a protective zone of Treflan vapor reroutes roots downward without harming roots or tree.

Forget extra labor.

Without Biobarrier, you're spending plenty of time and labor to trench, trim roots and replace damaged landscaping. But with Biobarrier, you'll only do the job once every 15 years—trim roots, replace damaged cart paths and install Biobarrier.

By rerouting roots downward, Biobarrier protects your golf greens, cart paths, tennis