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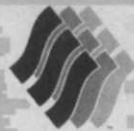
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## AS WE SEE IT

JERRY ROCHE, EDITOR-IN-CHIEF



### Environmentalists a part of radical new religion?

On the recommendation of Tim Hiers, a member of our Reader Advisory Panel, I recently read an interesting new book, "Environmentalism: the Dawn of Aquarius, or the Twilight of a New Dark Age?" by Dr. Michael S. Coffman.

If ever a person stood up as a radical anti-environmentalist, it is Dr. Coffman, who taught forest ecology classes for 10 years at Michigan Technological University. He's not against the environment (quite the opposite), he's just reached his wit's end when it comes to extreme environmentalists.

"What is going on?" he asks in the book's first chapter. "Environmental activism is often irrational...logic is superfluous, even despised. The environmental movement has shifted from a 'wise-use' conservation movement prior to the 1960s to a religious movement today."

Coffman points out that Americans now believe environmentalists over scientists by nearly 5 to 1. "In 1990, over two-thirds of all Americans believed what environmentalists had to say about environmental problems, compared to statements made by institutional scientists (15%)."

Here are some other statements Dr. Coffman makes, verbatim:

● *The true battleground is over what we as Americans believe. In a sense, it is a Holy War, one in which the opposition knows no compromise.*

● *Most Americans concerned about the environment are white, middle to upper class, far removed from the natural resources they depend on for their standard of living...at the highest level of Maslow's Needs Hierarchy...a mix of people who are likely to believe environmental horror stories more than scientific fact.*

● *Fear and raw terror, based in legitimate problems but rooted in the belief that nature is God, are being used to push us headlong into radical social change. Those studying the environmental movement acknowledge (its base) in Eastern*

*mysticism and pantheism.*

Dr. Coffman's statements, taken in context by someone who's followed the environmental movement for the last 10 or 11 years, don't sound far off the mark.

For instance: when was the last time you heard Jay Feldman of the National Coalition Against the Misuse of Pesticides back down from his radical posturings? Two years ago at the GCSAA convention, in the face of thousands of golf course superintendents, he demanded an end to pesticide use, for goodness sake!

As industry tries to keep America prosperous without unduly damaging the environment, the self-proclaimed environmentalists continue their crusade against "one part per trillion."

In the book's final chapter, Dr. Coffman ties things together nicely, suggesting concessions by both industry and environmentalists.

"The sky is *not* falling," he writes. "But we do have serious environmental problems that we, as a nation, must address. Industry must seriously review its business and conservation practices to determine where changes can be made. But we must also question the motives of the environmentalists...and demand that objectivity rule in the regulatory process."

"Environmentalism...Aquarius or...Dark Age?" is available from Environmental Perspectives, 1229 Broadway, Suite 313, Bangor, ME 04401. Cost is \$9.95 plus \$2 shipping. It's an easy, important read, recommended for anyone whose livelihood affects the environment in any way.

*Jerry Roche*



# LANDSCAPE MANAGEMENT

INCORPORATING LAWN CARE INDUSTRY

AUGUST 1993 VOL. 32, NO. 8

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*Terry McIver, Ron Hall*

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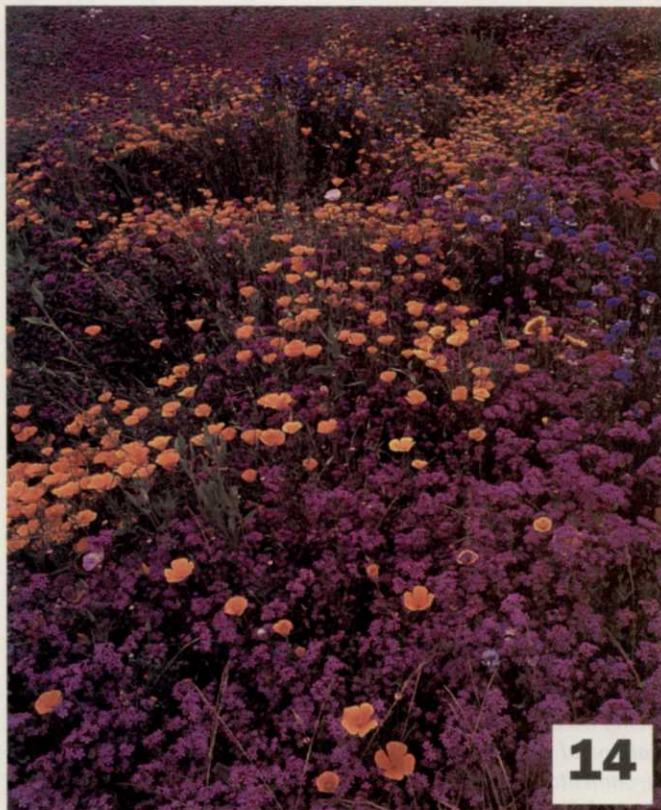
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*Ron Hall*

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*John Anderson*

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*Jerry Roche*

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*Ron Hall*

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*Terry McIver*

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*Ron Hall*





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*Ron Hall*

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## SPECIAL SUPPLEMENT

### Ornamental guide

From shrubs, trees and flowers to control products, this LM first is your natural resource of information on ornamental selection, planting and care.

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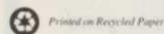
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# TURFGRASS SEED

## Availability

**It's a good report from turfseed marketers coast to coast: prices right, quantities sufficient.**

■ The 1992-93 seed harvest will be sufficient to meet demand, thanks to cooperative weather. Apart from some minor supply differences among producers, there's enough seed to go around.

Weather conditions in Oregon were troublesome at first, starting with more winter cover than usual, followed by excessive early spring rain.

"The Willamette Valley has received unprecedented spring moisture in 1993," say Skip Coville and Dan Walters from International Seeds, Inc. production division. At one point, seven inches of rain fell in four days.

"The situation is vastly improved over last year," says Bill Rose, president of Turf Seed, Inc. Most of its seed has been sold, but Rose says there was some unexpected carryover.

"Acres have been severely adjusted, (there are 20,000 fewer tall fescue acres), inventories are down and we are looking at a brighter new year."

**The cultivars**—Bluegrass production in the Willamette Valley is limited due to burning regulations. Supplies of some favorite varieties will be in scarce. Burning the fields after harvest is necessary for a good crop the following year. A good crop of fine fescue is expected, and there's a good supply of hard fescue. Rose says Turf Seed's bentgrass supply is "excellent, with plenty of Pennlinks, Penneagle and Penncross."

To the northeast, Glenn Jacklin of Jacklin Seed Co., Post Falls, Ida., reports a good crop of proprietary bluegrass. "We thought the common crop was going to be a big crop this year, but as it turned out, it's a little bit below what we anticipated. It will be an average, maybe below average crop, about 500 to 600 lbs. per acre. It's been a good year for irrigated proprietaries all across the board. We'll have a big crop of Glade and the main varieties." Skip Allert of Jacklin blamed the low yield of commons on the extended snow cover and late field burning.

Rain has been more of a factor in Idaho's seed yield than in Oregon's. Rain persisted from mid-June through swathing time. Jacklin had his fingers crossed for the '93 crop, but was actually more concerned over the 1994 yield, due to possibility of poor field burns.

Jacklin called the company's ryegrass crop "slightly below normal." Tall fescue should be in adequate supply.

Growers everywhere were concerned over the outbreak of stem rust on fine fescue. Mike Robinson of Seed Research of Oregon, Inc., said the problem was anticipated, and the rust was treated in time.

**'Burning' problems**—All seed producers continue the search for viable alternatives to field burning, to meet the stricter regulations, effective in 1997. Additionally, Oregon State University is in the middle of a three-year program, testing whether vacuuming and propane burning can clean fields as effectively as flame burning.

—Terry McIver

## SEED AVAILABILITY\*

<u>Species</u>	<u>Status</u>
Bentgrass	Good
Bermudagrass	Fair
Kentucky bluegrass, common	Fair
Kentucky bluegrass, proprietary	Good
Fine fescue	Good
Hard fescue	Good
Tall fescue	Good
Perennial ryegrass	Good
Zoysia	Fair to good

\*Subject to change due to weather

## RESEARCH news

■ **Doug Brede** of Jacklin told a crowd of field day visitors about company research into plant biotechnology.

Biotechnology differs from conventional plant breeding in that it manipulates plant genes at the cellular level, rather than the whole plant. The process is producing new germplasm and otherwise elusive genetic combinations.

**Bill Meyer**, Turf Seed Inc.: The company is attacking disease and insect problems in turf. Its North Carolina research farm is breeding for brown patch resistance in tall fescue, the most serious dis-

ease of the species. Another goal is stem and crown rust resistance in perennial ryegrass.

**Dr. Rich Hurley** of Lofts says industry hasn't, so far, been able to breed brown patch resistance into creeping bentgrass, "but we're trying to develop varieties that have some degree of improvement." Disease resistance is more pronounced in Lofts' newest perennial ryegrasses which, Hurley says, are also more temperature tolerant. They'll be used increasingly in the transition zone, he believes.

**Kenneth Hignight**, lead plant breeder



# SEED QUALITY *compromise*

Bill Rose, president of Turf Seed, Inc. compares annual ryegrass plots with high quality turf.

■ Turf-Seed President Bill Rose says three long-standing practices in the seed industry hurt growers and end-users:

- 1) Seed imported by species;
- 2) Seed sold without a variety name ("Variety Not Stated," or identified by species);
- 3) Low-quality seed sold to homeowners. Annual ryegrass is exceptional for soil stabilization and everyday ground cover, but it's unsuitable for most home lawns.

The solutions, says Rose:

- Require all seeds to be named. European regulations require all seed to be certified. Rose suggests all seeds—certified or not—be named. Consumers would then know what they're buying.
- Eliminate VNS as a seed identifier. "This," says Rose, "is a simple but damaging way for seed growers or seed companies to avoid buying or marketing seed. This seed has no home, and results in lower prices for everyone."
- Eliminate annual ryegrass from mixes advertised for home lawns or quality turf.



The Lawn Institute's Jim Brooks advocates a program to require that mixtures with less than 5 percent annual ryegrass qualify for the Institute's "Seal of Approval."

for Advanta (owned by Vander Have Oregon) says the company geared up to pursue an intensive program in tall fescue research, specifically to achieve high (near 100 percent) endophyte levels.

At Seed Research of Oregon, **Dr. Leah Brillman** says endophytes will some day be "typed" according to certain characteristics. "Some are stronger than others, and they transfer better to the seed," and Brillman is trying to isolate those that transfer best under normal conditions, and which stay viable in long storage.

**Dr. Fred Lederboer** of Turf Merchants: "We're working on placing endophytes in as many tall fescue and perennial ryegrasses as possible." Lederboer also reports improvements in the company's **Bonzai** dwarf tall fescue and its perennial ryegrasses.

**Dr. Steve Johnson** of ISI reports the company will release **Houndog II** in the fall of 1994. Houndog II is an endophyte-enhanced, heat and disease resistant, turf-type tall fescue.

—T. M., with additional reporting by Ron Hall

## NEWEST SEED *products*

■ Here's a sampling of new varieties available in varying degrees this year:

● **Kentucky bluegrasses**—From Jacklin Seed come **NuStar** and **NuBlue**. NuStar has excellent density and moderate seeding vigor, with intermediate maintenance. NuBlue is very dense with above average drought tolerance and superior resistance to necrotic ring spot.

**Wildwood**, from Lesco, is a low-growing variety with a dark green color and medium to fine leaf texture. It shows early spring green-up and resistance to leaf spot, dollar spot, stripe smut, leaf rust, powdery mildew.

This season only limited amounts of Lofts' new billbug-resistant Kentucky bluegrass, **Eagleton**, are available. "We really don't know the mechanism (causing resistance)" says Dr. Rich Hurley, but he knows it's not endophytic. Two other new premium varieties of Kentucky bluegrasses from Lofts, **Preakness** and **Belmont**, are also in limited supply, says a company spokesperson.

● **Fescues**—**Confederate**, a tall fescue blend from Turf Seed, Inc., shows improved summer turf performance with improved brown patch and leaf spot resistance. Confederate is a blend of Safari, Olympic II, Apache and Monarch.

**SR 8300**, from Seed Research of Oregon, displays a semi-dwarf growth habit, medium to fine leaf texture, rapid tillering, and heat and drought tolerance and relative freedom

from leaf spot and stem rust.

● **Perennial ryegrass**—**APR**, from International Seeds, Inc. and Rutgers University, is available in small quantities in fall of 1993. This endophyte-enhanced variety provides significantly improved resistance to warm season diseases and good traffic tolerance.

**Cutter**, from Pickseed West, ranked number one in drought tolerance and tied for second in overall quality, genetic color, winter color and pythium resistance.

**Prism** is new from Zajac Performance Seeds. Prism is very dense, with a dark green color and low growth habit. Prism is fine-bladed, with improved resistance to leaf spot, brown patch, and red thread.

● **Creeping bentgrass**—**Lopez**, from Fine Lawn Research, is a fine bladed, dark green variety, top-rated in the NTEP trials. Resistance to brown patch and dollar spot, leaf spot and take-all patch is a plus.

● **Bermudagrass**—from O.M. Scotts comes **Sonesta**, a drought and heat resistant variety, rated number one in the NTEP. Sonesta needs less moisture, and grows at low mowing height.

● **Zoysiagrass**—most notable is the "Zen line," from Turf Merchants, composed of four varieties: Zen 100; Zen 200CS; Zen 300CS; and Zen 400CS. Only 300CS and 400CS are available, in limited quantities, in 1993.

—TM, Ron Hall





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# SNOW REMOVAL

## Only the tough and smart make dollars in this chilly second cousin to landscape management.

■ Snow removal will beat you up. Punish your equipment. Pound your employees. And, if you're not careful, damage property, including landscapes.

Sure, it's a tough job, but, hey, somebody's gotta do it. Okay, that's a horrible reason for any landscape business person to offer professional snow removal. (Who, after all, looks forward to getting yanked from a warm bed to wrestle with a frozen truck for a pre-dawn bout with sleet?)

The only reason to provide snow removal is to make money.

Is it unreasonable to expect a profit from something as necessary and difficult as pushing, blowing or, sometimes even, trucking snow from clients' properties?

Making money from snow removal is making money the old fashioned way. You earn-n-n-n it!

That's assuming that you price the service thoughtfully, that your equipment and employees are dependable and rugged, and that the snow accommodates you. Believe it or not, sometimes all these things happen, just like you drew it up on your business plan.

Or you might offer snow services because you have no choice. To keep profitable landscape clients such as office parks, apartments and condos, you must take care of these properties in the winter, too. Or, you have several key employees that you want to keep year round. Even so, don't ever lose sight of the fact that you're in business to make a profit. That includes the "off season" too.

Some professional snow removers charge "per push," some "per month," some "per season," some anyway they can.

Each way of billing clients has good and bad points but, generally, contractors that establish long-term relationships with clients and charge "per season" (with some type of contingency payment in the event of a blizzard, etc.) can more accurately predict income. Clients know in advance what they'll be paying too.

So you already know how tough it is to rust out employees at unpredictable hours, about the extra maintenance your trucks and loaders are going to require. How about your liability?

What happens if one of your trucks damages a client's landscape? What about the possibility of a lawsuit because someone claims they fell on a sidewalk or in a parking lot you're contracted to keep clear? Better check that you're properly insured for snow removal.

One last thought from the real snow removal pros—buy the toughest, most dependable equipment and accessories you can afford. You won't regret it.

—Ron Hall

## Blades, blowers, throwers, SPREADERS, sweepers

**Ariens** tractors and riding mowing systems have many attachments, including 42" and 54" front blades, a two-stage Sno-Thro, a Sno-Cab, and a front loader.

Other options:

- chains;
- slicer bars and wheel weights.

**Circle No. 300 on Reader Inquiry Card**

**Bolens** Snow throwers come in four models, from the 130 lb., 4 hp Model 4021 to the 295 lb., 10 hp Model 1026. All feature solid state ignition, a bronze worm gear and zone recall starting. The largest two models also come with hand warmers and a limited-slip differential.

**Circle No. 301 on Reader Inquiry Card**

**Boss Products** offers a complete line of snow plows, both straight blades and blades that are hinged in the middle so they can be used as V-blades to cut through drifts or inverted V-blades to carry snow across a parking lot. The Boss also offers Rapid-Tach, the truck-to-plow quick hitch, and several different salt and sand spreaders for pickups, flatbed or dump trucks.



**Circle No. 302 on Reader Inquiry Card**

The **Cushman** Front Line rotary mower can be fitted with optional snow removal attachments including a 50"-wide Hansen Snowblower (electric chute control), a 54"-wide snow



blade (spring trip, hydraulic lift, replaceable skid shoes), a cab enclosure (windshield, electric wiper), a 60"-wide polypropylene brush, a heater/defroster, and a headlight set.

**Circle No. 303 on Reader Inquiry Card**

**Deere & Company's** array of snow removal equipment is extensive with blades, snow blower, snow thrower, and brush attachments available for practically every John Deere tractor (including lawn & garden tractors) and its front mowers, too. Tractor enclosures, loaders, and eight different walk-behind snow blowers add to Deere's winter equipment offerings. Deere's two 8- and 10-hp snow blower models have worm-gear drive, adjustable locking differential and cutting widths to 32".

**Circle No. 304 on Reader Inquiry Card**

**Excel** extolls the superior maneuverability of its Excel Hustler out-front rotary mower. Attachments include a dozer blade, a V-blade, rotary broom and heavy-duty snow thrower. Tire chains, wheel weights and rear weight kits are also available. For operator comfort and safety, the Excel Hustler offers ROP structures and cab enclosures.

**Circle No. 305 on Reader Inquiry Card**



**Frink** manufactures snow plows, wings, spreaders and truck bodies. Its Super Trac Revers-A-Cast Trailblazer plow fits on a pickup. Its 9-foot-long moldboard can be reversed 30 degrees left and right. Polymer moldboard repels ice and snow, and is corrosion resistant.

**Circle No. 306 on Reader Inquiry Card**

**Gravelly's** snow removal equipment includes 40" and 48" two-stage snow blowers, a 44" power brush, and a 48" snow dozer blade. These attachments are available for the Gravelly Professional-G Series riding tractors.

**Circle No. 307 on Reader Inquiry Card**

**Polaris** ATVs (all-terrain vehicles) can be fitted with optional 48" or 60" snow plow blades. Polaris ATVs have no gears but are equipped with the Polaris Variable Transmission which matches torque or speed to the job.

**Circle No. 308 on Reader Inquiry Card**

**Simplicity Manufacturing's** attachments for its lawn & garden tractors include a 42" snow blade, a 36" snow thrower, a snow cab, tire chains and wheel weights. Also, Simplicity offers five different, 8- and 10-hp, walk-behind snow throwers,



including 28"-clearing Model 870 and the 32"-clearing 1080. Both these models feature Power Boost that allows the operator to work at maximum power at all times.

**Circle No. 309 on Reader Inquiry Card**

**Snapper's** Model 10303 is a full-size, two-stage snowthrower that clears 30" wide in one pass. Like all Snapper models, this unit's multi-directional chute moves snow where you want it. This model has a 10 hp engine. Six-speed, on-the-go shifting lets you gear down for the heavy stuff.

**Circle No. 310 on Reader Inquiry Card**

**Steiner Turf** offers 48" and 60" Power Angle Blades, 49"-wide, two-stage snow blower, and 54-inch wide rotary sweeper as attachments to its line of 2- and 4-wheel drive turf tractors. The attachments can be installed and removed in two minutes or less.



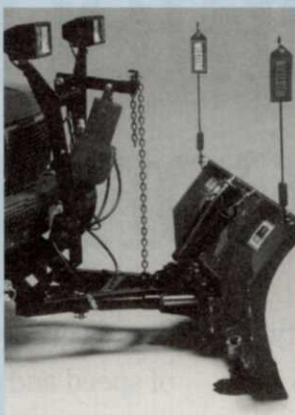
**Circle No. 311 on Reader Inquiry Card**

**Thomas** skid steers can be fitted with a "quick-tach," hydraulically powered, two-stage snow blower or, for lighter snows, a 72" angle broom.

**Circle No. 312 on Reader Inquiry Card**

The **Toro Company** offers a full line of walk-behind snow throwers. Its Power Shift 38570 has an 8-hp B&S engine, and like several Toro models, comes with adjustable traction wheels that allow more weight to be put on the auger. Accessory kits include: light, chain, drift breaker, 110V electric start, cab, 30" grader blade and skids.

**Circle No. 313 on Reader Inquiry Card**



**Western Products' UniMount** System allows quick and easy removal of a Western Snowplow from the front of a truck. Four pins and two electrical plugs are all that's needed to attach or remove the UniMount System. Western's hopper-type sand and salt spreader is a self-contained material spreader for ice control on driveways, roads, parking lots and sidewalks. Mounts easily on pickup, dump or platform trucks.

**Circle No. 314 on Reader Inquiry Card**

**York Rakes** now offers a line of rotary brooms. The YB32 mounts to a standard 3-pt. hitch tractor and requires a PTO running at 540 RPM. A hydraulically driven 3-pt. hitch model is also available. The Model TFB328 mounts to a trucks' snow plow hitch frame and is powered by a hydraulic motor hooked to the truck's hydraulic system.

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# Patented 2-pedal drive compacts a pretty

Unlike many compact utility tractors, the John Deere 55 Series won't leave you stranded in the clutch.

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diesels give you 2-pedal control of speed and direction. One pedal forward, one pedal reverse. No levers. No clutch. No grinding gears.

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# ve makes John Deere y, shiftless bunch



Patented 2-pedal hydrostatic drive gives you control of speed and direction. Left pedal controls forward, right pedal reverse. Center pedal is a brake that returns tractor to neutral when depressed.

blower, for example) in five minutes or less, without tools.

And you can use the mower, loader, or tiller, without having to detach either of the other two — true implement compatibility.

Make the switch to shiftless. See your dealer for a no-hands demonstration. Or for more information, call 1-800-544-2122.

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# Six steps for wildflower success

■ The right reasons for establishing wildflower areas in the landscape:

● Once established, they require less care and watering, and virtually no fertilizing or trimming.

● Typically, they're mowed just once, when their color fades at the end of the season.

● But of course, the biggest reason is beauty, often year after year.

These virtues make wildflowers well suited for golf course roughs, highway medians and roadsides, hill-sides and, increasingly, in and around industrial/commercial properties. Even homeowners are looking at wildflowers with fresh enthusiasm. Homeowner sales jump when the public sees wildflowers along a highway or at a golf course.

But some people have the mistaken belief that all you have to do to establish wildflowers is scatter or plant the seeds and let them take care of themselves. Usually, they won't. Wildflowers do not compete well against weeds.

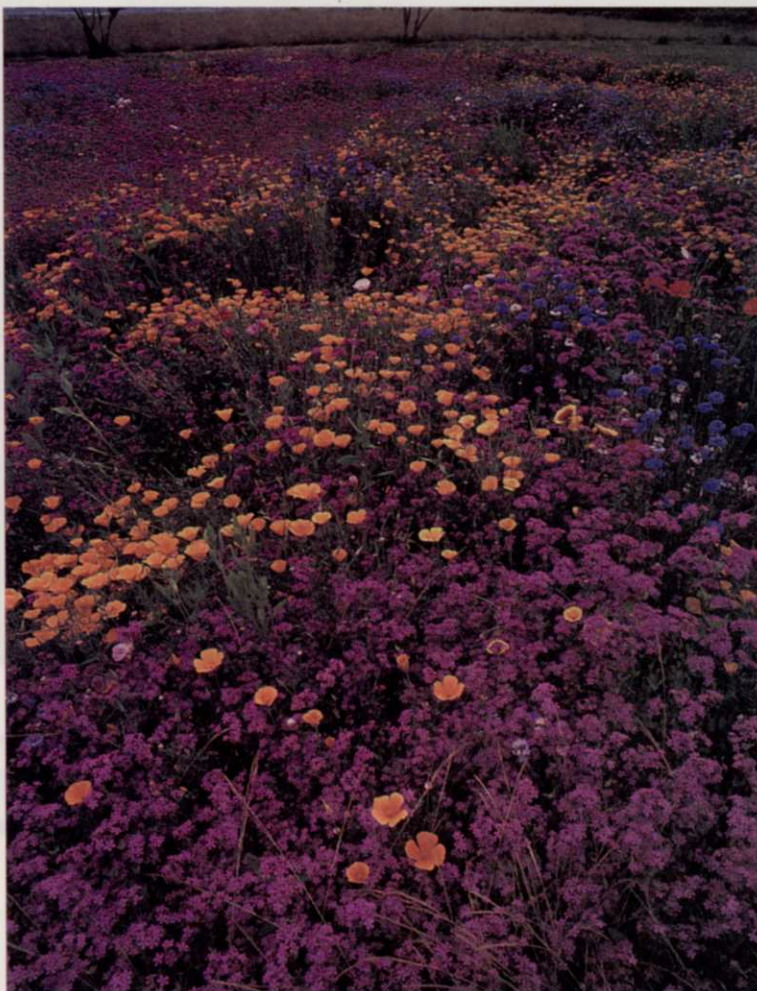
Quite simply: plant a wildflower area as thoughtfully as you'd plant any other type of garden.

## 1) Site selection—

Wildflowers perform best in moderately fertile soils with good moisture-holding capacities. Don't expect wildflowers to prosper in areas that won't support other types of vegetation.

**2) Planting times**—Rainfall and climate determine planting times, but generally it's best to plant in either the spring or fall. In cold climates, if you plant in the fall, plant late enough so seeds won't germinate. In mild climates, fall plantings give annuals a head start the following spring. Moisture for four to six weeks after planting is critical regardless of the climate.

**3) Weed control**—Remove existing weeds by tilling, pulling or using a general herbicide. If weeds are numerous you might need to remove the weeds, irrigate the area to germinate weeds seeds on or



Wildflowers need less care and watering, and virtually no fertilizing or trimming.

near the surface, then kill/remove this next crop of weeds. In fact, you might have to do this several times.

**4) Soil preparation**—Prepare a loose seed bed or, if this is impossible, at least scarify the top surface of the soil. Cover the seed by  $1/8$  to  $1/4$  inch of soil by raking the area lightly. Caution: don't cover the seed too deeply.

**5) Rainfall & irrigation**—If your area gets at least 30 inches of rainfall per year, you'll probably have to irrigate only in

drought emergencies. If you get less rainfall, you'll have to irrigate more often; about  $1/2$  inch per week is the rule.

**6) Maintenance**—Weed and irrigate as needed, particularly as the wildflowers become established. Some landscape managers mow their wildflowers in the fall. Also, it may be necessary to re-seed a wildflower area for a year or two, at about half the original seeding rate. Perennial wildflowers usually take two to three years to attain their full growth.

(For more immediate wildflower results, a relatively new product is pre-established wildflowers, wildflower "sod," on 5-sq.-ft. mats, plants that have already been grown to about 3 inches high. Denver-based Wildflower Carpet, Inc. says it's establishing dealers across the country to pallet-ship "carpet" from growers directly to users. Cost, of course, is greater than seeding.)

Technically speaking, many wildflowers aren't so wild anymore. Many species are now grown in fields like other seed crops, but usually on a much smaller scale. Some wildflowers are prolific seed producers, others aren't. Weather and market conditions also influence the availability (and price) of specific wildflower seed.

Wildflower seed producers and suppliers now offer an astonishing selection of bloomers.

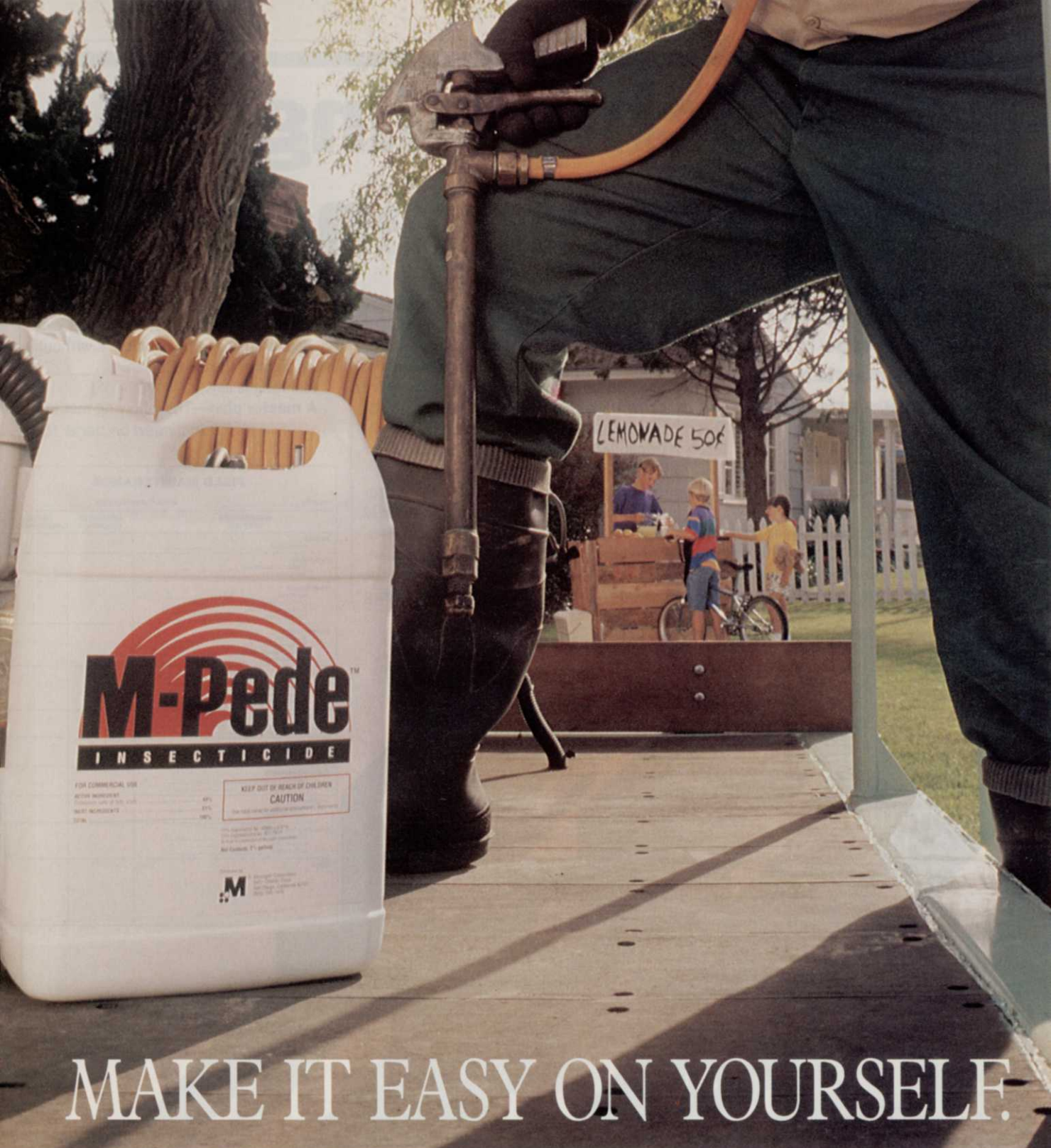
The most natural and long-lasting displays result from mixtures of annual and perennial species that are well-adapted to local growing conditions.

Most suppliers can recommend appropriate, if not entirely native, seed mixtures for every area of the country. In many cases, they're also able to custom blend wildflower seed to meet specific customer demands.

For more information about wildflowers, write: National Wildflower Research Center, 2600 FM 973 North, Austin, TX 78725-4201; or phone (512) 929-3600.

*(Bloomers Wildflower Mixture from Turf-Seed Inc. Photo by Larry Kassell.)*





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# Scheduling field maintenance

**Segregating parts of the total landscape into different maintenance areas helps prioritize needs.**

by John Anderson

■ Wouldn't it be great if, year after year, the same field management program produced perfect results? If it were only so simple. But from one year to the next,

changes in cultural practices are necessary to achieve the desired results.

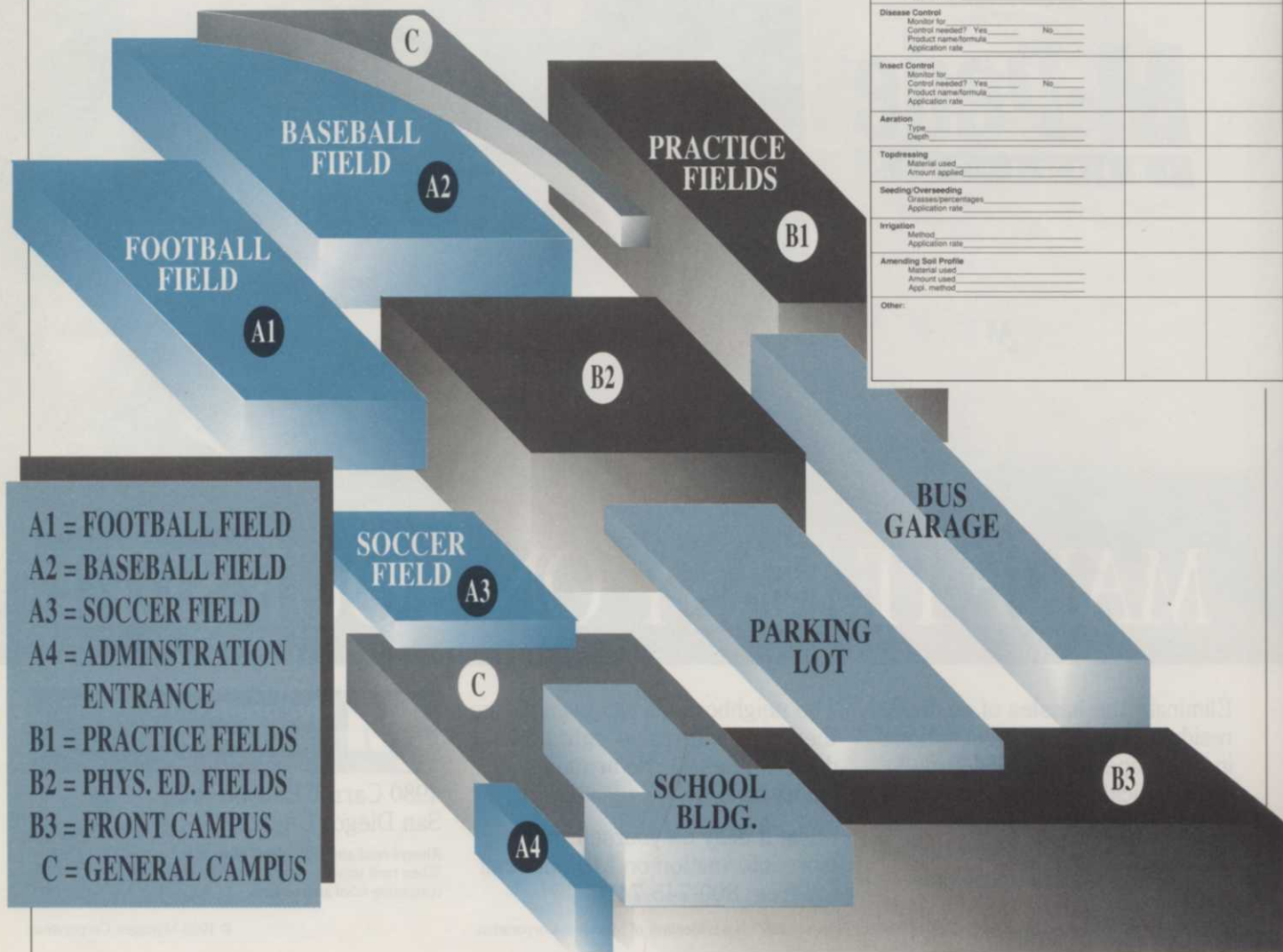
Varying circumstances from outside forces—like weather conditions, degree of use and budget restrictions—may drive certain changes. Other changes are instigated in response to updated research, improved equipment and products, or analysis of past program results.

It takes the expertise of a trained professional to develop a schedule of field maintenance to deal with all the variables. The ability to adjust and manipulate management practices is key to achieving the desired results. Planning a year-long

schedule, rather than just a seasonal one, allows for program adjustments that can be adapted to changing conditions without losing sight of the overall plan.

Planning is key.

**A master plan**—The following method *continued on page 18*



FIELD MAINTENANCE			
MONTH	AREA CLASSIFICATION	SCHEDULED FREQUENCY	DATE(S) PERFORMED
Mowing	MAINTENANCE PRACTICE		
Height of cut: _____			
Fertilization			
Product name/formula: _____			
Application rate: _____			
Weed Control			
Monitor for: _____			
Control needed? Yes _____ No _____			
Product name/formula: _____			
Application rate: _____			
Disease Control			
Monitor for: _____			
Control needed? Yes _____ No _____			
Product name/formula: _____			
Application rate: _____			
Insect Control			
Monitor for: _____			
Control needed? Yes _____ No _____			
Product name/formula: _____			
Application rate: _____			
Aeration			
Type: _____			
Depth: _____			
Topdressing			
Material used: _____			
Amount applied: _____			
Seeding/Overseeding			
Grasses/percentages: _____			
Application rate: _____			
Irrigation			
Method: _____			
Application rate: _____			
Amending Soil Profile			
Material used: _____			
Amount used: _____			
Appl. method: _____			
Other: _____			





Howard Mees, Vice President/Regional Manager-Environmental Care. Full-service lawn maintenance company operating in six states.

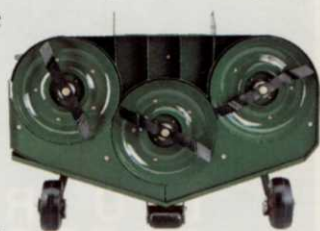
# A down-to-earth approach to mulching

"Mulching is a practical solution to grass clipping disposal. But you have to do it right to get the most out of it. That's why we're satisfied with Ransomes Bob-Cat Versadeck™ mulching mower. It not only chops the clippings multiple times, but the Versadeck returns them to the soil where they promote healthy, vigorous grass. In addition to benefiting the lawn, mulching reduces the stress placed on landfills.



"Before we bought our Ransomes Versadeck mulching mowers, we

tested units from all the major manufacturers. What we discovered is the Versadeck has a high deck design that allows the clippings to be drawn up and chopped several times before they are forced to the ground where they decompose. Because of the fine cut, we don't have a problem with clumping. And, for those times when we can't mulch, the Versadeck can be converted to a side discharge mower."



For more information on the benefits of mulching or the Ransomes Bob-Cat Versadeck mulching mower, call 1-800-228-4444.



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of developing a master plan is adaptable for any site. Classify your grounds into areas according to their maintenance requirements. Set up as many areas as you feel are necessary to work out your plan. Consider these five major factors in determining the classifications:

**1)** What level of use do the grounds receive? How many people go through the area? What type of use occurs there? How often is it under use?

**2)** What quality level do you wish to achieve? What degree of maintenance will be required to maintain field playability with anticipated use? How often and by whom is the area seen? What are the quality expectations of users, coaches and athletic directors, owners or management, spectators?

**3)** What level of management do the plants require? What are the seasonal needs of the various turf species under

anticipated use? Are there any potential problems that may be triggered by unusual weather or heavier use? What about specific problems or major maintenance tasks for ornamentals?

**4)** What are the site conditions? What soil type or types are involved at each site, including skinned vs. grassed areas? What effect does site location have on climatic conditions (e.g. windswept field, full sun, etc.)? What drainage and irrigation factors are involved?

**5)** What kind of budget is available? What is the staff level and experience of the labor force? What equipment is available (on-hand or lease/loan)? How much of the budget is for supplies?

After looking at these factors, separate your sites into areas of management (see illustration), then create a program specific to the needs of each classified area.

**Specifics**—Look at the tools available in terms of cultural practices, and determine to what extent each will be needed for each classification. For example, cultural practices available for turf include: mowing, irrigation, fertility, pest control, aeration, seeding, topdressing, amending the soil profile, etc.

Plan soil tests so that results will be available to formulate the most effective fertilization program for each site. Note trouble spots that will require special attention or eventual renovation. Set up a monitoring schedule for pest problems so that control products will be used as needed to deal with target organisms specifically. Consider the effects of each practice in relation to overall site conditions.

Once you have established what work each site needs done, the next step is to schedule when the work should take place. This is determined by the five factors (above) used in separating areas.

Breaking the calendar into two-month groups allows you to formulate a flexible program, but keeps the goals in a manageable but defined time frame.

The last process of the year is to evaluate the strengths and weaknesses of the program. Winter is no hibernation period: even if the weather keeps everyone off the fields, the time is highly productive. It's ideal for analyzing what went right or wrong the previous growing season, and developing a strategy to improve and refine the program.

—The author is account representative for Arthur Clesen, Inc., Wheeling, Ill. He has 15 years experience in the turf industry, and is a member of the national Sports Turf Managers Association and its Midwest Chapter.



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- Steve Renko and Tom Turley,  
Mid-American Sports  
Complex, Shawnee  
Mission, Kansas

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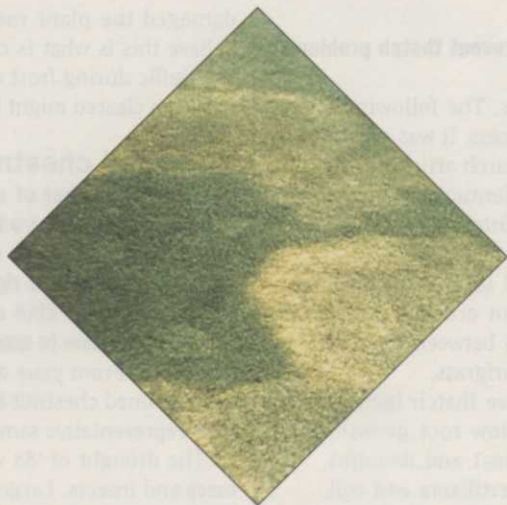
866 Lancaster Dr. SE, Salem, Oregon 97301

Phone: (503) 585-1157

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It's tougher on your course than a foursome of hackers.  
And slows down play even more.



Brown patch

A bad case of Brown patch can turn even the most avid golfers away from your course.

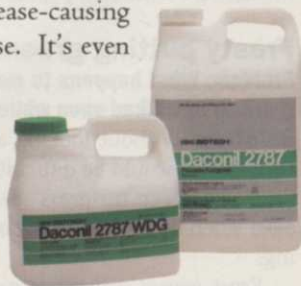
That's why you need the superior protection of Daconil 2787® Flowable Fungicide or WDG Fungicide from ISK Biotech Corporation. They control tough summer diseases like Brown patch on all Northern area grasses — including Bentgrass tees, greens and fairways.

And when you use Daconil 2787, you get effective, broad spectrum control of 17 other disease-causing organisms. That includes those that cause Melting out, Dollar spot, Leaf spot and Anthracnose. It's even registered for effective control of *algal scum*. Plus, use Daconil 2787 as recommended on your ornamental plantings and plant beds to control disease.

This summer, make Daconil 2787 the most important component in your turf management program. For disease resistance management, it's hard to beat. Daconil 2787 protects your turf from disease, and leaves the damage to all the golfers you'll attract.

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**Nothing performs like Daconil 2787. Nothing.**





# ASK THE EXPERT

DR. BALAKRISHNA RAO

## Earthworms and thatch

**Problem: Does earthworm activity help prevent thatch problems? (Mich.)**

**Solution:** We get these calls every year. The following article might be useful in understanding the process. It was excerpted by Dr. Douglas L. Caldwell from several research articles by Dr. Dan Potter and others at the University of Kentucky, particularly a report from the *Journal of Economic Entomology* (1990.83-1: 205-11).

Thatch is a tightly intermingled layer of decomposed roots, rhizomes, stolons, plant crowns, stems and organic debris that accumulates between the soil surface and the green vegetation in turfgrass.

Problems associated with excessive thatch include reduced water infiltration and shallow root growth, which increases vulnerability to heat and drought stress and restricts penetration of fertilizers and soil insecticides. Thatch may also encourage insect and disease problems and weed encroachment.

Many invertebrates, including earthworms, are important to plant litter decomposition and nutrient recycling in soils. They enhance decomposition by fragmenting and conditioning plant debris in their guts before further breakdown by micro-organisms.

Earthworms, in particular, affect the chemical and physical composition of soils by pulling down and mixing organic matter into subsurface layers, enriching and humifying the soil with their excreta and disseminating bacteria and fungi.

Dr. Potter summarized his research by stating, "Our results show that earthworms perform a function similar to topdressing by rapidly incorporating soil into the thatch matrix, as well as dispersing organic matter to subsurface layers, and by creating a micro-environment that enhances a microbial decomposition."

Therefore, avoid applying Sevin, Turcam or benomyl to lawns with thatch, as these chemicals are particularly toxic to earthworms. Dylox, Oftanol, Rubigan, Bayleton and 2,4-D have little impact on earthworm populations.

## Frosty putting greens

**Problem: What happens to make the grass on a putting green die if driven or walked upon while a frost is on the ground? (Va.)**

**Solution:** Without looking at the problem areas and suspected turfgrass, it would be difficult to explain the reasons for turfgrass death. However, turfgrass affected with frost can be severely damaged when driven or walked on due to blades and/or tillers breaking.

Frost causes vegetative parts to become stiff and brittle, and they break easily. This is a stress and can also serve as a potential site for many low-temperature basidiomycete fungi to colonize. Some of these can establish and cause snow mold disease.

Frost injury can also injure or kill the exposed crown. Since the crown is the only perennial part of the grass plant, once it is

damaged the plant may not green up the following spring. I believe this is what is causing the grass to die. Perhaps avoiding the traffic during frost or delaying the traffic until after the frost has been cleared might be helpful.

## Two-lined chestnut borers

**Problem: A number of our oak trees are showing severe decline and dieback. Some are already dead. We found small holes on the branches and, in some cases, a few slender-bodied insect larvae about 1/2-inch long in zigzagging tunnels in the inner bark. Could you tell me what kind of problems we may be dealing with, and what can be done to manage these? (Mich.)**

**Solution:** From your description, you are probably dealing with the two-lined chestnut borer. However, for positive identification, send representative samples to your local extension service.

The drought of '88 weakened many established plants to diseases and insects. Large oak trees have been severely damaged by borers such as the two-lined chestnut borer. I believe the slender long larvae you have found is related to this borer.

Two-lined chestnut borers primarily attack oaks weakened by drought, defoliation, diseases like anthracnose, and other stresses. Extensive feeding damage by chewing insects like gypsy moth, forest tent caterpillar or cankerworm also can severely weaken and stress the plants. The larvae kill the trees by constructing galleries, primarily in the phloem. Affected trees initially will show wilting and brown leaves in upper parts of the crown. They usually die after two to three years of repeated borer infestation.

Seeing "D"-shaped holes, the adult emergence holes, is a good indication of two-lined chestnut borer activity. When you see these holes and wilting leaves, it is too late.

Quite often, trees may get oak wilt disease caused by fungi because of extensive weakening and stress. It is not uncommon to find both problems on the same tree.

If the problem is related to borers, promptly remove and discard affected trees. Natural control using predators such as woodpeckers to feed on overwintering larvae may be useful. Minimize leaf-chewing activity by using microbial pesticides such as Bt or traditional pesticides such as Sevin. You may practice a cultural approach by using trap trees to attract adult borers. In this case, girdle living trees in spring, preferably the trees already infested. Adults will lay eggs on these, but larvae will die because the trees become very dry. Another method is to cut infested trees in the summer so that the larvae will die due to rapid drying of the cambium.

For positive identification and management guidelines, contact your extension office.

*Dr. Balakrishna Rao is Manager of Research and Technical Development for the Davey Tree Co., Kent, Ohio.*

**Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.**



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# Minimizing compaction on athletic fields, golf courses

**While turfgrass is not directly killed by compaction, it makes the plant susceptible to other stress factors.**

■ As the American people turn more to outdoor physical activities for their recreation, increasing pressure is being placed upon recreational field managers and golf

course superintendents who must cope with traffic levels never expected as little as 15 years ago.

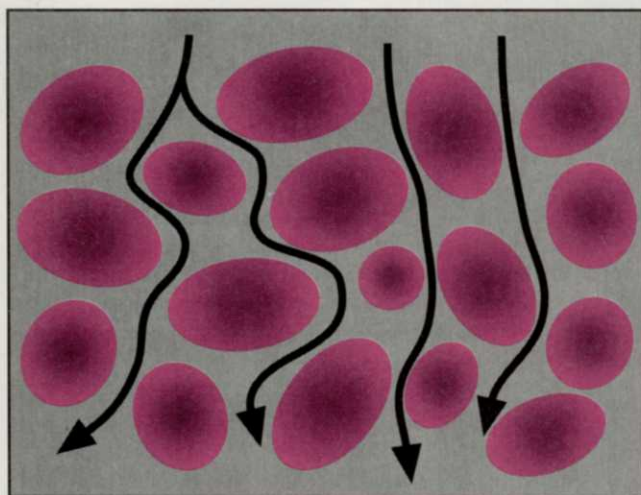
The average athletic field supervisor, unlike his counterparts of yore, must make turfgrassed fields available to youth baseball leagues, men's and women's softball leagues, soccer leagues, recreation softball and touch football leagues, and much, much more.

The average golf course superintendent watches in the neighborhood of 30,000 people play on his course every year—and

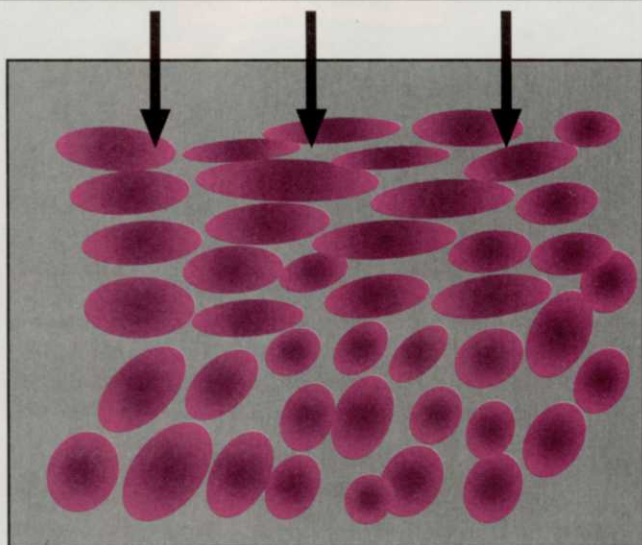
in extreme instances will see upwards of 60,000 people on courses that are open throughout the year.

What results is usually not pretty: worn down, brown grass, trampled and "left for dead." Though most athletic field turf mixes are hardy breeds, they usually cannot cope with the effects of soil compaction, which steals their sustenance.

"Soil compaction caused by foot and vehicular traffic is a common problem of turfgrass areas," note Drs. Bill Daniel and *continued on page 24*



**Uncompacted Soil Structure**



**Compacted Soil Structure**

**Arrows represent:**

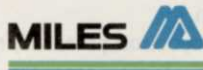
- Root penetration
- Water infiltration
- Oxygen gas exchange



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**Most compaction in top three inches of soil, says Dr. James Beard**

**Compaction** *from page 22*

Ray Freeborg in their "Turf Manager's Handbook."

"In a nine-year study of compaction on a putting green in Virginia, the air porosity decreased from 21 to 17 percent while infiltration was reduced from 45 to 32 cm./hr. Heavy compaction caused a 22 percent lower air porosity and a 46 percent lower infiltration rate when compared to normal maintenance."

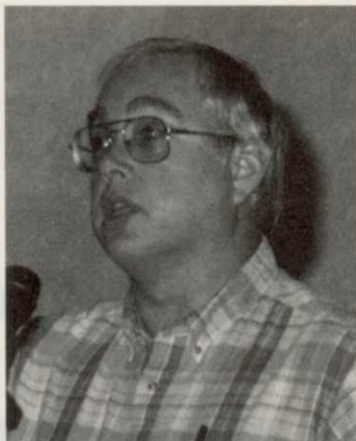
Do not mistake wear damage with damage caused by compaction. Excessive traffic can destroy leaf tissue (wear), leaving root systems intact. But compaction can cause much more serious damage, to the roots.

**From the top**—Most compaction occurs within two to three inches of the surface, says Dr. Jim Beard in his well-known text "Turfgrass: Science and Culture." Yes, but in reality, it is the top *one inch* of the soil that is most radically affected.

Because soil particles are so tightly compressed in compacted situations, there is little air space to allow water and gas to infiltrate the soil and work their wonders on the turfgrass plant's root system. Eventually, the roots may die altogether.

Different soils react differently to increased traffic. Fine textured soils like silts and clays are far more easily compacted. At the other end of the spectrum, certain coarse textured sands resist compaction.

Compaction potential, notes Dr. Beard, *continued on page 26*



**Grass uses 25-50 percent less water, non-compacted, says Dr. Bob Carrow.**



**Dealing with compaction can save money, says Dr. Jack Hall.**

**What compaction does:**

- Destroys soil structure; increases soil bulk density; increases small pore space, decreases large pore space.
- Contributes to lower air porosity, lack of soil aeration; increases carbon dioxide in soil; decreases oxygen diffusion.
- Contributes to reduced water infiltration and percolation; increases surface water runoff; increases water evaporative losses; decreases leaf water potential; decreases drought hardiness; increases need for irrigation.
- Causes greater soil temperature extremes; increases heat conductivity and canopy temperatures.
- Decreases nutrient and pesticide movement; decreases nitrogen use efficiency; decreases plants' stored food reserves; increases need for herbicides and fungicides; increases proneness to wilt and disease.

*Sources: various*

**Alleviating compaction:**

- Use species/cultivars adapted to your area and cultural level.
- Control traffic through scheduling and design.
- Cultivate as often as necessary.
- Adjust other management programs: develop good drainage, irrigate as deeply and infrequently as possible; keep nitrogen levels adequate but not high.
- Modify the soil chemically (use gypsum for heavy, salt-affected soils).
- Modify the soil physically (add sand or organic matter to heavy clay soils).
- Install paver systems, as a last resort.

*Source: Dr. R.N. Carrow*



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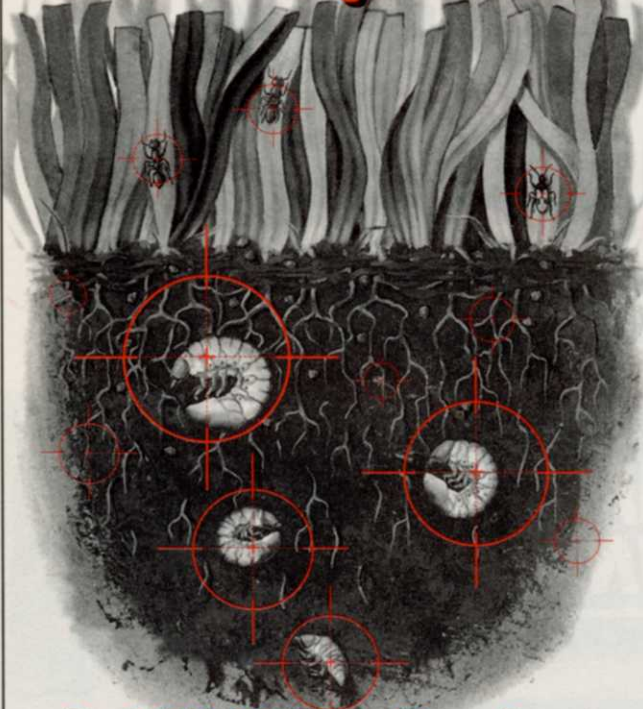
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## Compaction from page 24

is influenced by:

- 1) soil texture (coarse texture = less compaction)
- 2) severity of pressure (lighter traffic = less compaction)
- 3) frequency of pressure (less traffic = less compaction)
- 4) amount of vegetation (more vegetation = less compaction)
- 5) soil water content (dry soil = less compaction)

**Other problems**—As soils become more compacted, other problems find a window of opportunity. Dr. A.J. Turgeon, in "Turfgrass Management," reports:

"Turfgrass communities growing in compacted soil are often invaded by various weed species [such as goosegrass, knotweed and annual bluegrass]. Some weeds that typically grow under these conditions may possess the capacity to transmit foliar-absorbed oxygen to their roots to satisfy respiratory requirements. Thus, specific weeds may have a definite advantage over many turfgrasses through their ability to persist under these conditions."

Besides weeds, other problems crop up like decreased drought resistance, wilt, and some diseases.

"Turfgrass growing under compacted conditions," observes Dr. J.R. Hall III, "has less stored food reserve, more succulent tissue, and greater proneness to wilt and disease. This lack of growth and competitiveness often leads to greater need for irrigation, herbicides and fungicides. Dealing with compaction can therefore save money in the long run."

Dr. R.N. Carrow adds another cost factor to the equation: grass plants use 25 to 50 percent less water under non-compacted versus compacted conditions, but low infiltration rates under compaction make irrigation very difficult. "The grower often finds it necessary to irrigate with low quantities of water on a frequent basis," he notes, "which greatly increases evaporational losses. Therefore, total water use actually becomes greater under compacted conditions."

**Cultivation**—The number one cultural practice that helps to alleviate soil compaction is cultivation (aeration/aerification). But proper timing is critical.

"Cool-season (grasses) generally require heavy aerification spring and fall with additional cultivation if traffic is heavy," says Dr. Hall. "Warm-season bermudagrasses are best aerified as soon as they have greened up in the spring and through the summer growing period."

"Spring cultivation should be done early enough to allow Kentucky bluegrass, tall fescue or perennial ryegrass time to heal before crabgrass germination begins in late April or early May," adds Dr. Hall. "This is not as critical if good pre-emergence herbicides are applied."

"Aerification too early in the spring or too late in the fall when the turf is not competitive may increase the potential for annual weed invasion. Likewise, aerification during periods of limited moisture may aggravate limited moisture conditions by increasing evaporative water loss from the soil."

Other procedures for halting the problems of soil compaction are listed in the accompanying tables (page 30).

—Jerry Roche

## Ammonium sulfate fertilizer suppresses summer patch

■ Researchers at Rutgers University in New Jersey have found that using ammonium sulfate fertilizer (21-0-0-24S) suppresses summer patch by changing soil acidity, according to Dr. Joseph Heckman.

Dr. David Thompson, Rutgers plant pathologist, explains: "Ammonium sulfate reduces the soil pH almost immediately, and

*continued on page 30*



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For more information about the complete line of Triaform fertilizers, contact your Scott Tech Rep. Or call 1-800-543-0006.



### Triaform™ Technology

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## Sulfate from page 26

that has been shown to suppress summer patch in our tests on Kentucky bluegrass.”

Thompson notes that the commonly-used fertilizer urea will lower the pH somewhat in the long term, but in the short term it actually encourages summer patch. Tests showed a 60 to 80 percent reduction in summer patch when ammonium sulfate was applied, compared to a 35 to 45 percent reduction with sulfur-coated urea. And, after two years, there was no significant reduction at all of the pH when urea fertilizer was used.

**What is it?**—Summer patch affects

cool-season grasses such as Kentucky bluegrass, annual bluegrass and fine fescue. It generally occurs on turf that has been established for more than two years. The fungus remains dormant over the winter months but thrives in hot, humid summer weather.

Summer patch attacks the grass roots and produces small circular patches of turfgrass that is dead above the ground. The patches may enlarge and blend into one another, resulting in large ragged areas of straw-colored grass and a very unsightly lawn.

Rutgers turf specialist Jim Murphy says

that continued use of ammonium sulfate can virtually wipe out the summer patch fungus.

“In 1992, on test plots where ammonium sulfate had been applied for three years, we saw no summer patch at all and didn’t need to use any fungicides. On plots without ammonium sulfate, we saw substantial disease activity.

“The summer patch suppression we saw in 1992 was likely influenced by the mild summer weather last year. But that underlines the strong effect that ammonium sulfate fertilizer alone had on the disease.

**Check soil pH**—When using ammonium sulfate over a period of time, you may need to apply lime to maintain a favorable soil pH, Dr. Heckman points out.

“A soil pH level of 6.0 to 6.5 (slightly acidic) is ideal for most turfgrass species. You should have a reliable soil test performed every two to three years, and adjust to a pH of 6.0 where summer patch is known to occur.”

Golf course superintendents who use ammonium sulfate regularly say it promotes early green-up when applied in the spring. They also apply it in the fall to keep plants stronger and more disease-resistant over the winter.

Not all commercial lawn fertilizers contain ammonium sulfate. Read labels or ask your fertilizer dealer for further information.

## Cultivation improves water relations on compacted soils by:

### • Greater root viability

- primarily by enhancing soil O<sub>2</sub> status
- by reducing penetration resistance

### • Improved infiltration/percolation

- reduces runoff
- allows for better irrigation programming
- reduces evaporation losses

### • Enhanced root extension

- by improving physical conditions
- by altering chemical properties when cultivation is used to inject lime, gypsum, phosphorus

Source: Dr. R.N. Carrow

## Cultivation Treatments Enhancing Soil Water Uptake By Turfgrass Roots<sup>1</sup>

PROCEDURE	APPLICATIONS/YR.	ENHANCED WATER EXTRACTION	
		Frequency <sup>2</sup>	Magnitude <sup>3</sup>
		%	
Floyd McKay Deep Drill	2	100	50 to 120
Aerway Slicer	2	100	38 to 41
hollow tine core aeration	2	50	38
Verti-Drain + hollow tine core aeration	2+2	45	28 to 96
Yeager-Twose Turf Conditioner + lime	2	30	13 to 32
Verti-Drain	2	20	30 to 70
Yeager-Twose Turf Conditioner + gypsum	2	7	27

<sup>1</sup>Studies conducted on a compacted Cecil sandy clay loam

<sup>2</sup>Frequency (%) = percent of water extraction measurements that exhibited greater water extraction than the compacted control

<sup>3</sup>Magnitude (%) = percent increase in water extraction over the compacted control

Source: Dr. R. N. Carrow



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# STRICTLY GOLF

## The magic touch: people relations

**Don't let agronomy get lost in the shuffle, but hone your interpersonal skills to get the most out of your management position.**

■ "There's a little magical touch you need in this business, and that's working with people."

So says Jerry Coldiron Jr., certified golf course superintendent at Boone Links/Lassing Pointe Golf Courses in hilly little Florence, Ky., just across the majestic Ohio River from Cincinnati.

"Problems arise mostly out of personality breakdowns," Coldiron observes. And he should know: as manager of 27 public holes (due to expand to 45), he's got different personalities coming at him from all angles:

- Coldiron not only reports to the county administrator, but also tunes in to the suggestions of a citizen's advisory panel that meets twice a year specifically to discuss the golf course.

- His full-time permanent staff numbers 12, including two assistant superintendents. Either Coldiron, Jerry Thiery at Boone Links or Greg Bulmer at the new Lassing Pointe, is "on call" at any one time.

Staff meetings are held "religiously" every two weeks. "We listen, we talk, we encourage the guys to open up," Coldiron continues. "You have to interpret what people are saying, though, and then follow through. We've made a ton of improvements that have come from the employees. I provide the tools and let them be creative."

- He hires up to 40 seasonal employees who work 15 to 30 hours per week. Many of them are senior citizens, but some are not.

"I spend an awful lot of time researching people," Coldiron notes. "We use a lot of referrals. I've got two co-op students now. We try to recruit, very seldom put ads in the newspaper. And we're still lucky enough to get some people coming off farms with a real good work ethic."

- He and golf professional Jeff

- As a past president of the Greater Cincinnati Golf Course Superintendents Association and board member of the Kentucky Turfgrass Association, he's come in contact with a wide variety of people he can rely on for answers to questions. "People are great in this industry," Coldiron observes. "To my knowledge,



**Jerry Coldiron, Jr. trusts in the talents and ideas of his crew. Staff meetings are held every two weeks. "We encourage the guys to open up," he says.**

Kruempelman operate as a team, and have for 13 years.

"We pretty much overlap responsibilities on the general operation," says Coldiron. "He'll ask my opinion on golf as much as I'll ask about grounds. We'll meet once or twice a week. We'll sit down and do budgets together; we trade off monitoring utilities and fuel. We divide up whatever makes sense."

"When we can't agree on something—which is very seldom—we go to the county administrator."

there are no secrets. I use the university people (Dr. Dwight Barkley of Eastern Kentucky University and Dr. A.J. Powell of the University of Kentucky) as much as anybody else in town."

**The basics**—Coldiron admits that he spends just 15-20 percent of his time on agronomics, but that doesn't mean that he's not emphasizing the course's beauty and health.

"They're very important," he says. "That's the first way a guy loses his job is

*continued on page 36*





## Manhattan II helps smooth out the roughs at Inverness

### *Tom Walker on Endophyte:*

*"Using Manhattan II perennial ryegrass with endophytes gives me a biological alternative to managing chewing/ sucking insects. I have seen no damage from these insects, even though I have not applied insecticides. It makes good sense to work with nature whenever possible."*

INVERNESS CLUB, TOLEDO — Superintendent Tom Walker chooses Manhattan II to overseed roughs at this prestigious club because of its wear resistance, quick establishment, dark green color and drought and disease tolerance. But Tom finds Manhattan II's big plus is *density*. Manhattan II actually produces more leaves per plant, an economy sometimes overlooked.

This increased basal tillering, coupled with Manhattan II's lower crown help 'heal' shallow divots by spreading laterally. This is why Manhattan II is used to overseed the range tees at Inverness, too.

Manhattan II was developed to take the abuses hard use areas demand, and look good while doing so. Give it a divot. Rough it up a bit. Manhattan II can take it. Just ask Tom Walker at Inverness Club.



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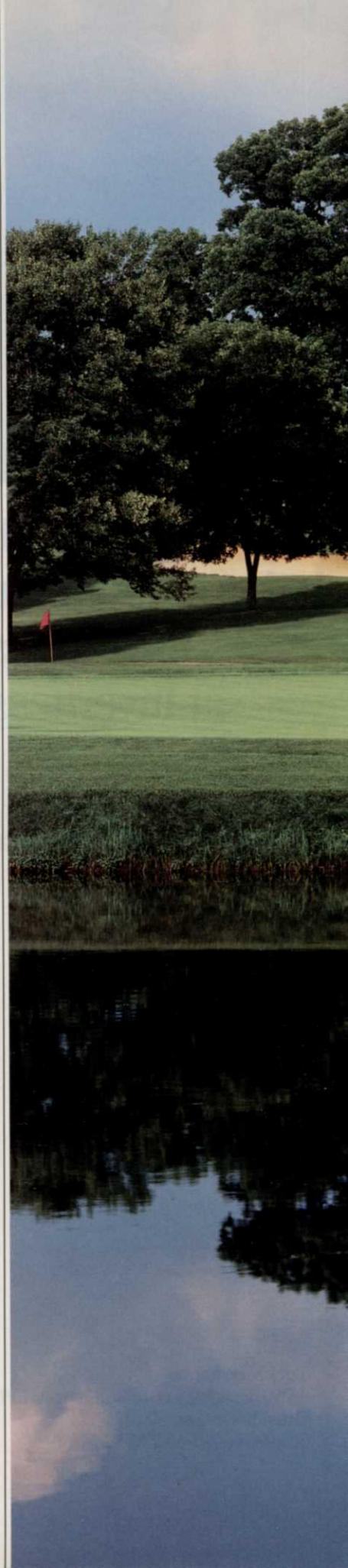
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**Magic** from page 32

if he forgets the basics. And lately, things have gotten real goofy: mowing heights, PGRs, playing golf all season."

One of the keys to keeping the course maintained is head mechanic Tom Woodall, who Coldiron calls "the single most important person on the golf course."

Woodall and his assistant are in charge of maintaining four tractors, half-a-dozen

**"We've made a ton of improvements that have come from the employees. I provide the tools and let them be creative."**

—Jerry Coldiron, Jr.

riding triplex mowers, four "five-plex" fairway mowers and 10 work carts. "We've got state-of-the-art equipment," Coldiron notes, "mostly Toro and Jacobsen."

Boone Links also leases 105 Club Car carts, and will contract for about 70 more when Lassing Pointe opens next spring.

**Growing out**—When LM visited Boone Links, the new 18-hole Lassing Pointe course was being grown in.

"Its design (by architect Michael Hurdzan) and construction was an exciting process," Coldiron notes. "It's a fabulous project. It could be one of the top five public courses opening in the U.S. next year."

Lassing Pointe was financed by bonds; Boone Links is self-supporting. The courses have a combined maintenance budget of \$1.6 million. And success has contributed to growth. "We've been so successful because we've never used tax dollars except for the feasibility study conducted for Lassing Pointe in 1991."

The key to its success always comes back to working with people, Coldiron reminds us.

"This is not brain surgery," he says. "You don't have to be a rocket scientist. We strive to make everything pleasant, to serve the public without worrying about our own problems. These are things you teach yourself."

—Jerry Roche

## GOLF COURSE MAINTENANCE

### Grinding, sharpening blades

■ Grinding and sharpening to mate the reel and bedknife of your greensmower are the two most important processes in the mower maintenance program, according to Tim Moraghan of the USGA Green Section.

You should grind blades whenever a new knife is used, after topdressing and on a biweekly schedule throughout the mowing season, he says. Grinding should be followed by backlapping, the fine sharpening and mating of the bedknife to the reel using a fine grit, emory-based compound.

When you purchase a bedknife, consider the following, Moraghan says:

1) There are three levels of bedknife thickness: regular, thin and championship. The lower the cutting height, the thinner the knife.

2) Use bedknives made of factory-recommended hardened steel.

3) Check for bends in the bedknives prior to purchase.

4) Match the mower brand with the bedknife.

5) Remove the paint on the bottom of the bedknife before mowing.

6) Check that all mounting screws are flush with the bottom of the bedknife prior to mowing.

### Water use on committee's agenda

■ Water usage studies are on the agenda of the GCSAA Scholarship & Research foundation's projects.

The studies would document actual water usage rates on golf courses around the country and compare them to other agricultural and industrial uses. They are scheduled to begin in the next five to 10 years.

Other projects scheduled are: a national study of the economic impact of golf courses and golf course maintenance; bird

and wildlife studies that would document the impact of maintenance practices on animals; and risk assessment studies to determine the actual pesticide exposure of golf course workers.

The University of Iowa's College of Medicine has been selected for the risk assessment study. Team leader is Iowa's Dr. Burton Kross. The initial study will focus on superintendents who have managed golf courses in the past 23 years.

### Nelson gets 'Old Tom' Award

■ One of the greatest golfers of all time, Byron Nelson, will receive the Old Tom Morris Award from the GCSAA.

"There is probably not a nicer man in golf," says GCSAA president Randy Nichols. "Even though he officially retired from the pro tour nearly 50 years ago, he constantly gives all that he can back to the game."

The GCSAA established the Old Tom Morris Award in 1982 to recognize individ-

uals who have made outstanding lifetime contributions to the game.

Nelson won the Masters in 1937 and 1942, the U.S. Open in 1939, and the PGA Championship in 1940 and 1945. In 1945, he set a PGA Tour record of 11 consecutive victories, and finished with 18 for the season. His namesake PGA Tour event, the GTE Byron Nelson Classic, has brought more than 25 years of goodwill to Dallas, Texas.

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# LAWN CARE INDUSTRY

## Cutting down pesticide use

### Dr. Roger Funk urges green industry to consider concept of 'sustainable development' at N.A.A. management conference.

■ Some of the public mistrusts the green industry's pesticide use. These critics need to be reassured about the environmental benefits of the green industry's efforts.

That's where the concept known as "sustainable development" fits in. The beauty of this idea is that responsible green industry pros already practice many of its tenets. They just haven't tied them together into a package they can present to the public.

Roger Funk, vice president for human and technical resources for The Davey Tree Expert Company, Kent, Ohio, told an audi-

ence at the 1993 National Arborist Association Management Conference this past winter that sustainable development is "development we can live with."

Funk said sustainable development is actually a teeter-totter. Industry is on one side and the environment is on the other. They must be in balance for progress to occur.

"All we have to do is put a little bit more weight on the environment side," said Funk. "We don't have to take weight off the economic side...We don't have to turn backwards, and we don't want to turn backwards."

To build sustainable development into your business, said Funk:

- **Develop an environmental statement.**

"The whole idea now is to get the environment and the economy together and you can make your decisions on the two and not on one or the other," said Funk.

### Funk's pesticide issues for the 1990s

**1) Chemical trespass.** The State of Michigan requires application companies to prepare a pesticide drift management plan. Other states may follow. Applicators (Dr. Funk addressed his remarks to arborists) will have to consider buffer zones, particle sizes, spray heights, alternative products, etc. to keep chemicals from drifting onto neighbors' properties.

**2) Notification and posting.** Several U.S. lawmakers want to take these regulations nationwide.

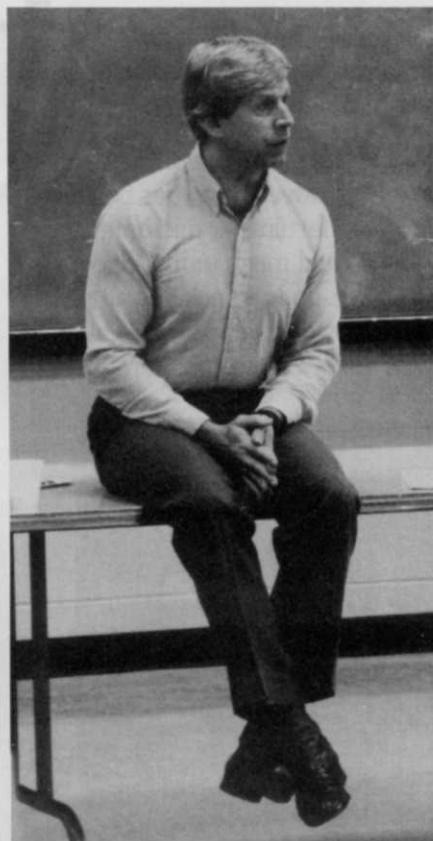
**3) Multiple chemical sensitivity (MCS).** No matter what industry thinks about MCS, some of the public and a small number of doctors are convinced it's real. "Since it has been given a name,

it now has legitimacy," says Funk. "And because it now 'exists', more people will come up with the symptoms."

**4) Disclosure of inert ingredients.** Arguing in the face of well-documented facts, some of the public's mistrust of chemicals is all-inclusive.

**5) Criminal charges and/or prison terms for company management.** New federal regulations can result in prison terms for managers as a result of actions by the company.

**6) Designated rinse containment areas.** Some states already require these areas. Others, because of fear of groundwater contamination, will probably require them also.



Dr. Roger Funk establish dialogues with customers and the public.

- **Improve environmental performance.** Select and plant the proper landscape materials with care and for appropriate sites. Provide the proper cultural care to improve plant vigor.

- **Establish a dialogue with customers/the public.** Funk asked: Do you survey your customers? Have you considered forming a community advisory panel to make suggestions for your company?

- **Strengthen your education efforts.** Consider how you can provide balancing

### INSIDE

**Hadco's a big fish  
in a small pond,  
p. 40**

**The value of a  
good newsletter,  
p. 42**



views in the local school system. Provide video and/or text packs that explains your industry and its goals. Offer your services to a speaker's forum.

Davey Tree knows the power of perception—and of action. It's working to reduce its pesticide use in tree care even more than the 75 percent reduction it accomplished in the late 1980s. The company's rallying cry of "95 by '95" refers to its goal to cut pesticide use by 95 percent by 1995.

"We probably won't reach it, but we will

come close," said Funk.

For instance, Funk pointed out that tests show that chemical blow-through and chemical drizzle on a tree with a 30-foot canopy can be reduced significantly by spraying no more than three gallons of material per minute at 70 psi.

Also, establishing tree application guidelines (rather than just relying on "spray to the point of runoff") would certainly cut the amount of pesticides used, he said.

Admirable as it is, a company's goal

shouldn't be merely to reduce chemical use. Goals need to be more positive, said Funk. Those goals focus on improving customer service, while reducing risk in providing that service.

"If people's perceptions are that we are the cause of pollution," Dr. Funk noted, "then, by introducing and promoting sustainable development, we will also be recognized as the people who solve the problems."

—Ron Hall

## No single program for everybody

■ Thinking about offering an "environmentally sound" lawn care program? Start by asking yourself why. Hopefully, you'll come up with an answer.

"Sit down and write down your own thoughts and definitions of what turfgrass and the environment mean to you," advises Gerard "Rod" Ferrentino, Cornell University Cooperative Extension.

"Then, after you've implemented your program, revisit what you've written and enhance it periodically."

Ferrentino, an IPM specialist, feels the biggest reason why some lawn care professionals aren't successful in



**Ferrentino: We are environmentalists**

marketing "environmentally sound" lawn care is because they haven't identified the different types of customers they serve.

"It's very difficult to have one program that works for everybody," he told about 100 turfgrass managers at the 1993 Loft Seed Field Day.

Also, some LCOs assume that their clients already recognize the environmental benefits resulting from professional lawn care. Wrong.

"It's time to come out of the closet and tell your message that you work with the environment. You work with turfgrass. You work with trees," said Ferrentino.

"If that's not the ultimate environmentalist, I don't know what the heck is."

"Anybody who applies a pesticide should be able to tell the pest that it's targeted for, the life cycle of the pest, where the pest is in the lawn, and how severe the problem is," he said as an example.

—Ron Hall

# TALK TO TERRA

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# 'Service them to death' (Maybe not that much...)

**...but service is indeed one of the keys to the success of Hadco Lawn & Landscape, a big fish in a small pond.**

■ Bartlesville, Oklahoma is a tiny town located 50 miles north of Tulsa.

The nation's first commercial oil well west of the Mississippi was drilled there, and every year the town hosts an International Mozart Festival. The town is the corporate headquarters for Phillips Petroleum, which is consequently its largest employer.

Bartlesville is also where you'll find Hadco Lawn & Landscape Management Company, which—for purposes of this story, anyway—is Bartlesville's greatest success story.

Wes Hadsell, 34, is president and founder of the 11-year-old company, which has established a definite presence in this town of 38,000 people.

Eighty percent of Hadco's revenue is generated by city contracts and Phillips Petroleum. The other 20 percent comes from residential accounts. It's the city's first and largest landscape/maintenance company.

Hadco "does it all," says Hadsell: irrigation, hardscaping, excavation, to the recently-added lighting installation.

A self-taught landscape designer, Hadsell draws out the plans for all designs.

Hadsell says he could easily expand to other towns; Coffeyville and Independence are two nearby Kansas cities in need of lawn care services, but Hadsell says he'd avoid expanding there for peace of mind. "It would drive me nuts not knowing how

to different situations, and are good problem solvers, like when it comes to modifying a pickup truck design (see related story, page xx).

**Industry spokesman**—Hadsell is an active industry supporter. He often speaks to civic organizations. A recent speech covered the importance of returning clippings to turf. He attempted to start a local lawn care association, but says the idea didn't spark enough interest. His concerns include a desire to see mandatory licensing among landscape contractors.

Hadsell started in landscape management by chance. He was in college, working about 32 hours a week for Phillips as a computer assistant. His wife, Cindy, worked at a savings and loan. The chairman of the bank needed someone to tend the grounds around his home. Wes offered to help with what he thought was a one-time favor. Soon he was mowing for a number of bank executives.

Hadsell didn't need his college degree to recognize the need for a high quality landscape management company, and soon Hadco was up and running. He bought some mowers on credit, hired one man to assist, and was on his way.

There are 15 year-round employees, about 35 during peak season.

—Terry McIver

## Hadco highlights

- ✓ No smoking on the job.
- ✓ Safety meetings are held regularly.
- ✓ Crew manager makes daily site checks.
- ✓ Uniforms required. Trucks always clean.
- ✓ Profit-sharing plan for employees.
- ✓ Spot inspections by Wes Hadsell weekly.
- ✓ For ornamentals, a "pinch and prune" crew is led by a trained horticulturist.
- ✓ Mowing crews mow, trim and edge.
- ✓ 'Winter rules:' "We pull together and do what it takes to get the job done," with a smaller crew, says Hadsell.
- ✓ Service tip: Use equipment to the fullest. 'When putting in an irrigation system, why not take advantage of what you have on hand (trencher, manpower) and make a pitch for a lighting system?'

☆☆☆☆ Company philosophy: 'Service!'

everything looks," he says.

Hadsell's employees are jacks of all trades, but are by no means unskilled. He says he prefers to hire persons with a variety of hands-on experience in vocational trades, like auto body work, masonry, or other trades. They work hard, can adapt



Hadco strives to give customers a sense of pride in their surroundings.





## Modified truck a work and money saver

Out of necessity came an invention.

One of Wes Hadsell's borrowed ideas is a pickup truck he modified with a fold down hydraulic tail gate.

"While at a trade show several years ago, I saw a truck bed which really appealed to me," Hadsell recalls. "It sat on a truck frame and looked like a trailer, but the back five feet sloped down close to the ground, which would create a problem dragging in driveways. Hadsell modified the idea, and enlisted the help of a welder he knew. He realized the design would eliminate problems that can occur when pulling and backing trailers: jack knifing, broken lights, bent axles, flat tires, vehicle license fees.

He and the crew modified a 1991 Isuzu overhead cab truck to come close to the



Modifications to this Isuzu truck make it easy to reach equipment and load cargo. Built-in fuel tanks for equipment eliminate gas can clutter.

**"The best feature about this bed is the fold down hydraulic tail. This allows us to load comfortably and safely, but to ride level while in transit."**

original. They now have two.

"We were tremendously happy with the finished product," says Hadsell. This past winter he modified another truck, with an added design change, to allow for easy crew access.

"We use these trucks for landscaping, and need the ability to put pallets of mulch, peat moss, trees over the side," Hadsell explains. "We therefore designed the fold down side boards. The best feature about this bed is the fold down hydraulic tail. This allows us to load comfortably and safely, but to ride level while in transit."

The trailers hydraulic cams are from a Jacobsen fairway mower. Smaller, hand-held equipment, like blowers and trimmers, is stored up front, within easy reach. Built-in fuel tanks for equipment eliminate the need for extra gas cans. Diesel fuel and gasoline are in separate tanks equipped with filters and clear viewers to check fuel level.

"The real value (of the trucks) is that they make our crews more efficient," Hadsell says.

—Terry McIver

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# Tips for a killer company newsletter

## The biggest failing for company newsletters is poor presentation, not the content.

■ If you're going to give your lawn/landscape customers a newsletter, give them a dynamite newsletter.

If you do, you'll accomplish something that even the nation's biggest and best service companies don't often do so well, says Flint Whitlock, who has both produced and judged award-winning newsletters.

In fact, size has little to do with grabbing your customers' attention with newsletters. But, just like the service you provide, your printed material must project an image of quality and be appropriate.

"If your newsletter is well produced in all its aspects, then people will assume your company does quality work. If it's poorly written, designed and printed, people are going to have a negative impression of your firm," says Whitlock, owner of Flint Whitlock Creative, Denver, Colo.

One of Whitlock's clients is The Swingle Tree Co. in Denver whose six-page newsletters are considered among the best in the green industry.

Suggests Whitlock:

✓ Find an appropriate name for your newsletter. Display it in the masthead which fills up about 1/3 of the cover page.

✓ Initially you can start with a single sheet of 8 1/2 X 11" paper, printed on both sides, or 11 X 17" which, when folded, makes four pages.

✓ There is space on each page for at least two or three short articles.

✓ Vary the size of headlines.

✓ Design at least one photograph, illustration, chart, graph, etc. onto each page. It should clarify or amplify information on that page.

✓ Determine how much space you want to devote to selling, special offers, coupons, etc.; how much space to customer information and education.

✓ Write in an easy-to-understand, conversational style. Don't be too technical.

✓ Don't forget to put your company name, address and phone number in each issue.

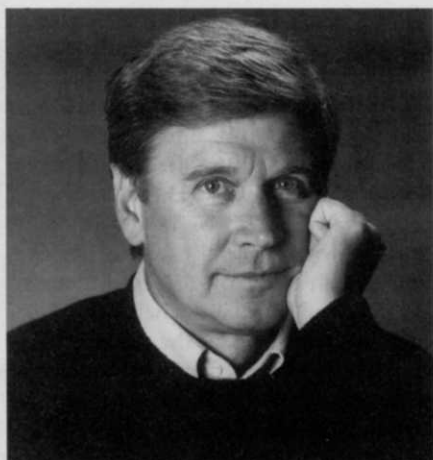
Material for your newsletter might

include: a question-and-answer column, success stories (some of your own if you can do it tastefully), how-to stories, even cartoons if they're appropriate. Keep asking your field and office staffs for suggestions.

The biggest failing of industry newsletters is poor presentation, says Whitlock, even when the information they contain is first rate.

"All the hard work in putting your newsletter together can go down the drain if the appearance of the newsletter turns people off," says Whitlock, who suggests the help of a someone who knows page layout and design.

—Ron Hall



Whitlock: 'Don't dazzle customers with your technical knowledge.'





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# HOT TOPICS

## Miami's zoo benefits from 'SWAT' attack

**MIAMI**—In one of the most intense busts of the season, a "SWAT" (Spontaneous Weed Attack Team) launched an attack on weeds in the Miami Metrozoo. More than 100 volunteers joined the team to help eliminate weeds over 500,000 sq.ft. of the zoo and its parking areas.

The effort was sponsored by Roundup grass and weed killer.

"With the aftermath of Hurricane Andrew, the Roundup SWAT team couldn't have come at a better time," says Ron Magill, assistant curator of the zoo. Since the hurricane, zoo staff has focused on restoring animal habitats and creating support systems for the thousands of trees that were uprooted.

The SWAT visit to Miami's Metrozoo was the final stop on a 10-city, four-month tour that included San Antonio, Houston, Dallas, St. Louis, Salt Lake City, Chicago, New Orleans, Denver and Minneapolis. The team partnered with local community beautification groups in each of the cities to maximize local involvement.

"The purpose of the SWAT team tour was to promote community efforts for safer, cleaner and more livable neighborhoods," says Danna McKay, Roundup brand manager for Monsanto. Volunteers attacked weeds, participated in graffiti paint-outs, planted trees and flowers, painted homes and began landscaping projects.

Although the Roundup SWAT team has completed its attacks for 1993, the team will again tour parts of the country in 1994, beginning in March. For more information on future site visits, send a postcard to Deborah Schulte, SWAT Team, One City Centre, Suite 1600, St. Louis, MO 63101, or call (314) 436-5477.



A SWAT volunteer at Miami Metrozoo squirts weed-infested pathways.

## Indyk responds to critic's points about LM article

To the editor:

It is encouraging that the article entitled "Athletic Field Renovation or Reconstruction" which I had authored and was published in the April issue has attracted the interest of at least one reader (Stephen McWilliams). Furthermore, it has motivated him to write a Letter to the Editor which appeared in the June issue. However, his seeming lack of understanding of the article as written prompts my response.

First of all, I am compelled to strongly challenge his statement that the decision-making process for determining whether to renovate or reconstruct is a "guessing game." I firmly disagree with him that we are "bankrupt for data" to properly address this question. The technical knowledge

and know-how is available; it's a matter of putting it into practice.

In my own situation, as turfgrass consultant for Turfcon of the Greenway Group, decisions on athletic field construction, reconstruction, renovation and/or maintenance are based on 30+ years of experience. (My) academic training coupled with long-term experience form the basis of site-specific decisions based on sound scientific and agronomic principles. This is not a "guessing game."

Mr. McWilliams concurs that drainage is the single most important factor in the failure of athletic fields. Yet he quickly questions the value of investing in a drainage system. He doesn't seem to understand that the physical characteristics of a "native soil" vary from pure sand to pure clay. Very few, if any, "native soils" possess natural physical characteristics for proper and effective drainage unless they are modified.

His statement, "We continue to put ban-

*continued on page 46*

### ELSEWHERE

**Getting certified: does it pay off?, page 46**

**GIE show is bigger than ever, page 46**

**List of state turf field days, page 48**





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## Indyk from page 44

bandages on a problem which is rapidly heading toward resolution in the courtroom" adds to the confusion. It is contradictory to his questioning of the value of soil drainage. Furthermore, it is precisely what I had emphasized in my article: renovation is a short-lived procedure unless drainage problems are corrected through reconstruction.

I wish to offer the following sugges-

tions to Mr. McWilliams: (1) thoroughly read the article again with an open mind; (2) become active in the STMA rather than expending energy and talents performing as a sideline quarterback; and (3) seek clarification from the author of an article before criticizing it.

*Dr. Henry W. Indyk  
Turfgrass Consultant  
Horsham, Pa.*

## Landscape certification: it pays, says this California contractor

Open letter to landscapers:

You contractors are probably like me: started out as a laborer, got promoted to foreman, then to supervisor, and finally went on to get your landscape license. It probably took five to 10 years going up the ranks, doing, learning, practicing the craft.

Then what do we do? Get a license and start a business. A business—not a trade. We are still in the landscape trade, but we go from craftsman to businessperson and we have to learn our job all over again.

In the beginning, we still do most of the work ourselves, but...pretty soon, we are spending time in the office instead of the field. And by this time, we start to realize there is a lot to know about business

that doesn't have anything to do with planting trees or gluing pipe. So we sign up for business seminars, go to night school, and buy books on accounting and marketing.

(Now) we are getting an education, but do any of us learn how to teach? And we start hiring skilled and unskilled people to do the work and represent us, and build our reputation. Maybe we check the crews daily and try to show the employees fine grading and proper pruning, but are we getting our point across? We are trying to do something we know very little about: teaching.

I know this to be true because I see the percentages of people who pass the

Certification Test, and they are consistently low—not just in Oregon or Colorado or Washington, but in California, north and south.

If you are doing a good job of teaching, why are so few people passing this test? We ask all basic stuff, nothing tricky—yet just 25 percent pass.

So I want to offer a solution, and it is basic. I challenge you contractors to take the Certification Test yourselves. Set the example, like a real leader would. If you can pass this test, you can expect anyone who represents you to be able to pass it.

Certification has been around for 10 years now, and it is not going away. Companies with certified employees have an edge on the companies that don't. Sooner or later, you have to certify your employees.

This is an education process, so get on board. Education is not always in the format of yelling from the truck to do it this way or that way. Get involved in a process that has gained recognition all across the country. You'll be glad you did, and your employees will have something they can be proud of, certification.

Get certified; it pays.

*Henry Buder  
Buder Landscape Restoration  
San Rafael, Calif.*

## HOT STUFF

### A show you don't want to miss

**MARIETTA, Ga.**—Management for the Green Industry Expo (GIE) has revised the trade show's floor plan this year to accommodate exhibitors requesting more booth space.

"Because of the success of last year's show, many of our exhibitors are asking for more space," says Ann E. McClure, GIE show manager. "So we've re-drawn our floor plan to include wider island exhibits. Attendees should expect to see more exciting products and imaginative displays."

The show, scheduled for Nov. 15-18 at the Baltimore Convention Center, is again being held in conjunction with three educational conferences put on by the Professional Lawn Care Association of America (PLCAA), the Associated Landscape Contractors of America (ALCA) and the Professional Grounds Management Society (PGMS).

The show will open with a special keynote presentation by one of America's most dynamic speakers, Ty Boyd. His keynote address is "Change...Meeting the Challenge!" that focuses on not compromising your personal sense of ethics and values.

For information on attending, call the PLCAA at (404) 977-5222, ALCA at (703) 620-6363 or PGMS at (410) 584-9754. For information on exhibiting, phone (404) 973-2019.

### MSU begins new turf program

**EAST LANSING, Mich.**—Michigan State University announces a two-year program in Lawn Care and Athletic Turf Management.

Coordinator David Gilstrap said the program takes 18 months to complete and includes a 22-week off-campus internship. For information, contact Gilstrap at (517) 355-0207 or Ron Collins at (517) 355-2281.

### Watch out for pine shoot beetles

**WASHINGTON**—The Horticultural Research Institute (HRI) is coordinating an effort to fund research into the pine shoot beetle.

The insect was first discovered last July on a Scots pine in Lorain County, Ohio. It has now been found in 51 counties in six states bordering the Great Lakes. All nursery pines and their lateral terminals must be inspected before they are certified as beetle-free and shipped outside infested counties.

Dr. David Nielsen of Ohio State University is volunteering his time to research the pest. However, financial support of \$20,500 is needed to hire a technician for the first phase of Nielsen's project.

You may send donations to HRI, c/o Pine Shoot Beetle Research, 1250 I St., NW, Suite 500, Washington, DC 20005.





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# GREEN INDUSTRY EVENTS

## AUGUST

**13: Turf-Seed/Pure Seed Testing Field Day/Two**, Rolesville, N.C. Contact: Dr. Melodee Fraser, (919) 556-0146.

**17: Ohio Turfgrass and Landscape Horticulture Research Field Day**, Ohio State University, Columbus. Contact: Phyllis Selby, (612) 292-2601 or Dr. Karl Danneberger, (614)

292-8491.

**17: Golf Course Design/Construction and Golf Day**, SUNY, Delhi, N.Y. Contact: New York State Turfgrass Association, (800) 873-8873 or (518) 783-1229.

**17: Wisconsin Turfgrass Field Day**, O.J. Noer Research Center, Madison, Wis. Contact: Dr. Frank Rossi, (608) 262-1490.

**17: South Florida Chapter/STMA meeting**, University of Miami. Contact: John Mascaro, (305) 938-7477 or Ed Birch, (305) 938-0217.

**17: Professional Bedding Plant Workshop/Annuals**, Norfolk (Va.) Botanical Garden. Contact: Sybil Kane, (804) 441-5830.

**18: University of Rhode Island Turfgrass Field Day**, Kingston, R.I. Contact: Bridget Ruemmele, (401) 792-2481.

**18-19: Pennsylvania Landscape & Nursery Trade Show & Conference**, ExpoMart, Monroeville, Pa. Contact: (717) 238-1673.

**19: Michigan Turfgrass Field Day**, Hancock Research Center, East Lansing, Mich. Contact: Kay Patrick, (517) 321-1660.

**19: Massachusetts Association of Lawn Care Professionals annual golf tournament**, Easton (Mass.) Country Club. Contact: Dick Ficco, (508) 238-8550 or Karen Connelly, (508) 287-0127.

**19-20: Practical Rigging for Arborists**, Pittsburgh. Contact: Michael Masiuk, (412) 392-8540.

**21-29: British Columbia Nursery Tour** (sponsored by Florida Nurserymen & Growers Assn.) Contact: Tops 'N Travel, (800) 872-8077.

**24-26: Pacific Northwest Vegetation Management Conference**, Tacoma (Wash.) Sheraton Hotel, Contact: Ken Maurer, (509) 547-5538.

**24-Sept. 9: Hort Tour of England**. Contact: Professional Plant Growers Association, (517) 694-7700.

**25-26: Pac Hort Expo**, San Diego Convention Center. Contact: California Association of Nurserymen, (800) 748-6214.

**31: "Fine Tuning Your Turf and Grounds Skill"**, SUNY, Alfred, N.Y. Contact: New York State Turfgrass Association, (800) 873-8873 or (518) 783-1229.

**31: Ohio Lawn Care Association Swap Meet**, O.M. Scotts facility, Marysville, Ohio. Contact: Julie Guenther, (614) 261-1242.

## SEPTEMBER

**1-3: Pan Pacific Green Industry Conference & Trade Show**, Waikiki (Hawaii) Sheraton. Contact: Karen Bento, (808) 545-1533.

**8-11: International Plant Propagators' Society/Western Region annual meeting**, Red Lion Inn, Bellevue, Wash. Contact: Steven McCulloch, (206) 352-5442 or Wilbur Bluhm, (503) 393-2934.

**9-10: Southwest Horticultural Trade Show**, Phoenix Civic Plaza. Contact: Arizona Nursery Association, (602) 966-1610.

**17: Composting Symposium**, Holiday Inn/Center of New Hampshire. Contact: Nancy Adams, (603) 679-5616.

**17-19: Florida Nurserymen and Allied Trades Show**, Orange County Convention Center, Orlando, Fla. Contact: FNGA, (407) 351-2610.

**18: Turf & Ornamental Open House**, University of Nebraska's Anderson Research Facility, Mead, Neb. Contact: Amy Greiving or Don Steinegger, (402) 472-2854.

**21-23: Virginia Tech Turf and Landscape Field Days**, Blacksburg, Va. Contact: Dr. J.R.



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# JOB TALK

## Client demands, site challenges not for the timid contractor

**Large maintenance accounts like Smith Ranch Homes separate the great landscaping firms from the average companies. Redwood's a great one.**

■ Smith Ranch Homes is an exclusive condominium project for senior citizens, located near Terra Linda in Marin County, Calif.

The 25-acre site includes 10.4 acres of landscaping maintained by Redwood Landscaping, which is headquartered in Santa Rosa.

It's easy to see why the Smith Ranch Homes contract offers plenty to keep the Redwood crew, company President Lebo Newman, and Operations Manager Dave Penry alert and well-practiced in the arts of preventive maintenance, planning, and communication with the customer.

The Smith Ranch Homes landscape features two putting greens of 10,000 sq. ft.; a lawn bowling surface of 2500 sq. ft.; several large water treatments; a greenhouse/garden area; and hiking trails through existing natural areas.

Smith Ranch Homes managers expect their own high standards to be followed by all service personnel who visit the property. Redwood therefore designed a measurement system to quantify those high expectations, and a management system to provide consistent quality. But it doesn't end there.

"We are continually redefining what quality is to the client," says Newman.

**Total satisfaction**—Redwood's area manager for Smith Ranch Homes is Denis Pelley, who is in regular contact with the property manager, four homeowner committees (for landscape, putting greens, garden and bowling greens); the developer; development sales staff; a horticultural consultant; and/or building maintenance staff.

Pelley visits the site daily. He walks the grounds with the property manager or committee representatives, and strives to satisfy their varied landscape expectations.

Newman believes Redwood plays the role of facilitator as it works in cooperation with each of the Smith Ranch interest groups.

**Water, plants, geography**—Smith Ranch Homes is irrigated with reclaimed water. Plant selection is therefore limited to those varieties which tolerate high concentrations of nitrates and chlorides, and low soil pH.

Originally, the Smith Ranch Homes landscape was to contain exotic tropical plants, such as papyrus to bird of paradise. The site's Zone 14-15 dry oak pasture has made that largely unattainable. Redwood is therefore trying to find more compatible plants to add to the property.

A plant inventory determined which species could best tolerate existing soil and water quality. Plants are replaced incrementally, as the tropics gradually become stressed out.

"Smith Ranch Homes wanted a program they could use to anticipate landscaping needs," says operations manager David Penry, "rather than just reacting to what happened. It's not the kind of place that you can allow to deteriorate then make better again. You have to maintain it at a high level all the time, and that means monitoring very carefully."

The water budget is tight; Marin County is one of the nation's most regulated water districts, with weekly monitoring and a multi-tiered payment schedule that encourages wise water conservation. Water use is monitored weekly.

"We have to stay within the budget allotment, or the client will have to pay much more," says Penry. In fact, Redwood saved the ranch quite a bit of money after it corrected some previously hidden problems in the water management hardware.

**Colorful changes**—The annual color program is planned at least three months in advance with input from the homeowners' garden committee. Redwood has a contract with a grower to assure the plants they need are available at the peak of color.

Rae-ellen Robertson, Redwood's annual color expert, visits every week. A special challenge has been to find a way to choose colorful plants without appealing to hungry deer.

Redwood Landscaping has realized the importance of being able to anticipate client needs rather than waiting for something to happen. Newman and his managers identify a problem area—such as the water's nitrate and chloride content—and solve it before it becomes unmanageable.



**Newman: Meet client quality standards.**



**Two putting greens at Smith Ranch—a feature unique to condominiums—pose added challenges. Plant selection must be compatible with soil conditions and water quality.**



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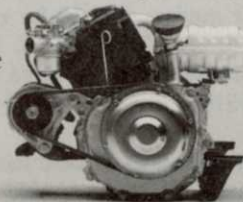
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## HOME TOPICS

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**MEDICAL LEAVE...**The American Association of Nurserymen, in cooperation with the Small Business Legislative Council, has developed a guide to complying with the new Family and Medical Leave Act. The publication takes the employer through the step-by-step process of dealing with a leave request, and contains the full text of the law. Cost is \$20 for AAN members, \$40 for non-members, plus \$2.50 shipping and handling. To order, write AAN, 1250 I St., Suite 500, Washington, DC 20005 or phone (202) 789-2000.

**ARBORICULTURAL LAW...**The International Society of Arboriculture presents "Arboriculture and the Law" study guide to be used in conjunction with the textbook. The study guide uses case examples and refers readers back to the appropriate section of the text. Each study guide includes an answer sheet that can be returned to the ISA office; individuals with

44 out of 55 correct answers get 3 CEUs toward maintaining their certification. To order study guides, send \$2 for each to: ISA, P.O. Box GG, Savoy, IL 61874. MasterCard/Visa orders accepted via fax: (217) 355-9516.

**DRAWING PLANS...**"Basic Landscape Plan Drawing," a 60-minute VHS-format video tape, is available from Progress Products. Topics include: detailed materials list; quick-draw methods; symbol tricks to create a 3-D drawing; stylized lettering and more. Price is \$59.95 plus \$5 shipping and handling. Send check, Mastercard and Visa orders to Progress Products, 8652 W. Progress Dr., Littleton, CO 80123; or call (303) 973-1011.

**EPA REGS CHECKLIST...**RGF Environmental Systems has recently made available a *free* Environmental Self-Evaluating Compliance Questionnaire covering EPA regulations, including the new

stormwater runoff requirements. The questionnaire covers all potential golf course/turf environmental problem areas. For your copy, contact RGF Environmental Systems, 3875 Fiscal Ct., West Palm Beach, FL 33404; (800) 842-7771.

**GREAT FOR CUSTOMERS...**"How to Plant" is the perfect leave-behind booklet for customers of lawn care and landscape businesses. The guide, originally published in 1940, just sold its millionth copy. "How to Plant," a 3-1/2"x7" booklet, covers planting instructions for 21 kinds of trees, shrubs, bushes, fruits and vegetables. They can be customized with a logo or imprint on the cover.

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inars. The services are provided to trade associations, utility companies, municipalities, large contractors or combined groups of smaller contractors. Programs are tailored to meet specific customer requirements. For more information, write VISTA, 525 Milwaukee Ave., Burlington, WI 53105 or phone (414) 767-0695 or (800) 942-2886.

**DIAGNOSING PROBLEMS...**Green industry professionals now have a convenient new tool to help diagnose pest problems. "Lawnscape and Ornamentals: Problems and Solutions" is a quick reference guide to common insects, diseases and weeds that infest lawns. It is an illustrated, 43-page booklet that can be obtained from Chipco distributors and sales representatives.

**PESTICIDE DIRECTORY...**The 1993 edition of the "Pesticide Directory" is available now from Thomson Publications, P.O. Box 9335, Fresno, CA 93791. The 160-page book covers agricultural, horticultural, institutional, pest control, home & garden, and organic chemical manufacturers. Its price is \$49.95. For more information, or to order, phone (209) 435-2163.

**ANOTHER CUSTOMER PERK...**The Fertilizer Institute and the PLCAA have produced a brochure for lawn care customers that highlights the environmental benefits derived from popular fertilizer use. It is available from the PLCAA for shipping and handling costs only. "Healthy Turf, Healthy Earth" fits into a letter-sized envelope. For a free sample and information on ordering bulk quantities, send a self-addressed, stamped envelope to PLCAA, 1000 Johnson Ferry Rd., NE, Suite C-135, Marietta, GA 30068-2112.

**MORE ON SAFETY...**Aimed at employers and safety managers, Zee Medical now offers the Basic Safety Series video program. Included are topics such as forklift safety, electrical safety, eye care & safety and industrial ergonomics. Each program consists of a training manual, topic video, program outlines, tips on training meetings and scheduling forms, and an employee quiz. For more information and prices, write Zee Medical, P.O. Box 19527, Irvine, CA 92713; or phone (714) 252-9500.

**ON SPORTS TURF...**A new Sports Turf Maintenance Guide featuring tips from noted Kansas City groundskeepers George

and Chip Toma is available free from PBI/Gordon Corp. The 32-page booklet outlines specifications and suggestions for mowing, watering, fertilizing; weed, insect and disease control; seeding, sodding, thatch and clippings management. For your copy, request Sports Turf Guide from PBI/Gordon Corp., P.O. Box 4090, Kansas City, MO 64101.

**TREE INJECTION...**Tree Technology Systems has published a self-study manual covering its Arbor-X microinjection products. Pages are color codes for each section, bound in a loose-leaf notebook. Copies of the self-study manual can be purchased for \$25 from Tree Technology Systems, Inc., 1014 Rein Rd., Cheektowaga, NY 14225; (800) 622-3711.

**PAVER INSTALLATION...**"Building Inter-locking Concrete Pavements" is now on sale from the Concrete Paver Institute, 2302 Horse Pen Rd., Herndon, VA 22071-3406. The 100-page instructional manual is for contractors and vocational schools. Copies begin at \$30 each plus \$6 handling and shipping. For more information, phone the institute at (703) 713-1900 or fax inquiries to (703) 713-1910.



# GREEN INDUSTRY SHOWCASE

## Synthetic lubricants: the wave of the future?

by Mark A. Massoglia

■ Equipment maintenance can often be the determining factor in the success or failure of a landscape business.

A landscaper can't survive long without properly maintained equipment. And proper lubricant selection is the key element in any preventive maintenance program.

For decades, motor oils, two-cycle engine oils, gear lubricants and greases were made entirely from petroleum crude

oil. More recently, however, synthetic lubricants have proven to provide vehicles and equipment with superior protection and extended service life. They are a bona fide alternative to petroleum lubricants.

Advances in engine technology over recent years have decreased the tolerances between engine components, and as a result, lubricants are put under more stress than ever. Combining tighter tolerances with changing fuel quality has resulted in more low temperature congealing, thermal breakdown, accelerated car-

bon deposits in two-cycle engines; high temperature volatilization in four-cycle engines.

Although petroleum goes through a refining process to remove impurities, some residue remains. Synthetic oil bases, on the other hand, are made from the chemically-engineered reaction of materials to produce a compound with a stable molecular structure.

Advantages of synthetic lubricants:

- They provide a superior lubricating film that allows components to move freely without causing metal-to-metal contact.

- Power is increased because less energy is being exerted during the lubrication process.

- Synthetic lubricants contain no wax, providing components with near-instant protection in the critical moments immediately after start-up.

- They are more resistant to thermal breakdown caused by oxidation because they contain no impurities and are able to withstand extreme temperatures.

Business owners and maintenance managers would be wise to note the many advantages of synthetic lubricants. They provide superior performance and are formulated to meet the ever-increasing environmental regulations for off-road equipment.

**Circle No. 191 on Reader Inquiry Card**

—The author is a technical writer for Amsoil, Inc., Superior, Wisc.



Synthetic lubricants are formulated to meet the ever-increasing environmental regulations for off-road equipment.

### PRODUCTS SHOWCASE

#### Fungicide label extends ornamental, turf control

Daconil 2787 flowable fungicide, from ISK Biotech, now extends to 55 damaging diseases on 78 species of broadleaf shrubs and trees—including conifers—as well as foliage plants and flowering plants and bulbs.

A recent review by the Environmental Protection Agency made the label extension possible.

In turf applications, Daconil 2787 fungicide is now labeled for control of algal scum, as well as a broader range of the fungal pathogens that cause dollar spot, brown patch, leaf spot, melting-out, brown blight

and other diseases.

ISK turf and specialty products sales manager, Jerry Pauley, says the label expansion is particularly important due to the growing threat of fungal resistance to single-site fungicides.

**Circle No. 192 on Reader Inquiry Card**

#### Perennial ryegrass matures early with dark green color

Fine Lawn Research, Inc. has released a new perennial ryegrass, Stallion Select.

Stallion Select (PS-1050p rated perennial ryegrass variety, is an early maturing variety with a dark green color. It is semi-dwarf, and produces a dense turf with

excellent mowing qualities.

Stallion Select is unique, says Fine Lawn, in that it has good resistance to rust, crown rust and leaf spot.

Quick establishment and compatibility with other perennial ryegrass varieties is considered a plus.

Other traits include:

- high levels of beneficial endophytes, at 94 percent or higher;

- good adaptation to cool-season climates. Stallion Select is suited for use in the south as an annual overseeding of Bermudagrass on lawns and golf courses (plant hardiness zones 2 through 10).

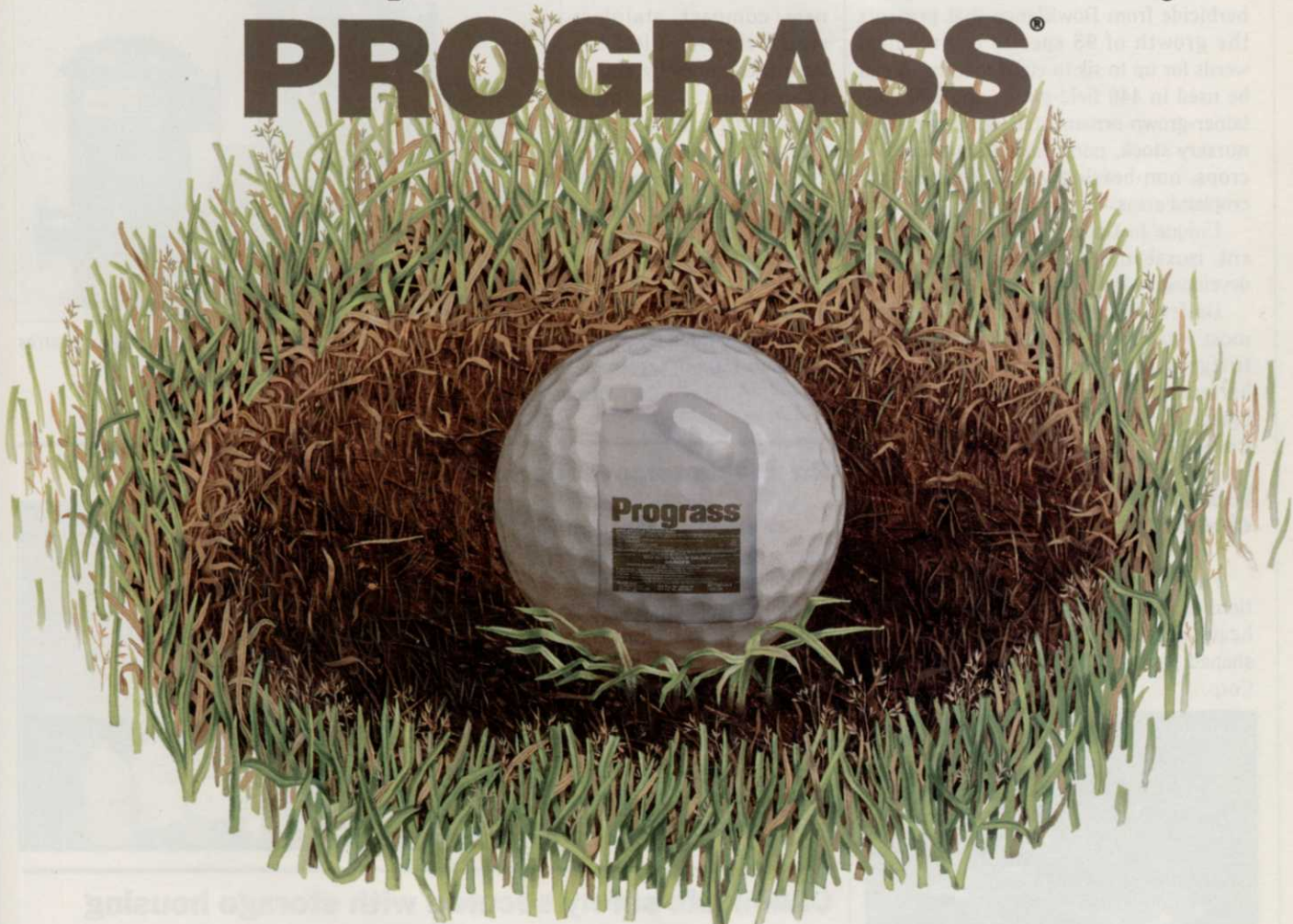
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# WHAT A LIE!

If *Poa annua* is causing you to make excuses for poor summer turf conditions try

## PROGRASS<sup>®</sup>



You can depend on PROGRASS<sup>®</sup>. . . This advanced selective herbicide can be used both pre-emergence and post-emergence to control your *Poa annua* problem effectively.

We're so sure you'll like PROGRASS, and will find it easy to use, that we're offering you a challenge . . . the PROGRASS Challenge.

Simply fill out the handy reply card to receive full details on how you can challenge tough *Poa* and rid yourself of those summer excuses.



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Specialty Products Division  
A Schering Berlin Company

3509 Silverside Road, P.O. Box 7495, Wilmington, DE 19803

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Golf course \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Circle No. 122 on Reader Inquiry Card



# PRODUCT REVIEW

## Control weeds for up to six, eight months

Gallery is a selective pre-emergence herbicide from DowElanco that prevents the growth of 95 species of broadleaf weeds for up to six to eight months. It can be used in 440 field-grown and 230 container-grown ornamentals, ground covers, nursery stock, non-bearing fruit and nut crops, non-bearing vineyards and non-cropland areas.

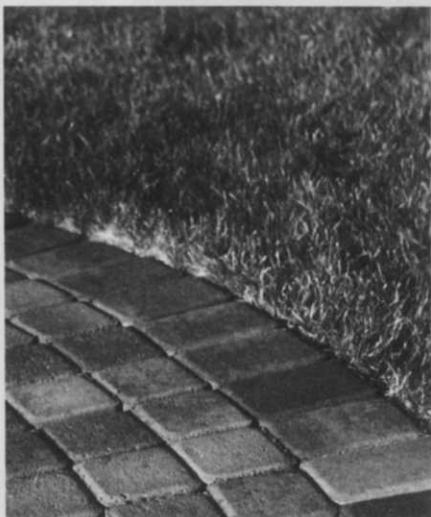
Unique to Gallery is its active ingredient, isoxaben, a new class of chemistry developed by DowElanco.

Gallery is recommended for use on most established cool and warm-season turfgrasses, including bahiagrass, bermudagrass, buffalograss, bentgrass, bluegrass, ryegrass and fescue.

**Circle No. 193 on Reader Inquiry Card**

## Keep those paving lines clean with this product

Paver, asphalt and aggregate installations look better and last longer with new heavy-duty StructurEdge aluminum L-shaped paving restraints from PermaLoc Corp.



Five types of restraints are available from a variety of applications around patios, walkways, driveways, maintenance strips, athletic surfaces and natural trails. All readily form curves, radii and angles.

StructurEdge is anchored with 10-inch spiral steel spikes and is designed to receive spikes every six inches on center.

**Circle No. 194 on Reader Inquiry Card**

## Irrigation filter simple, innovative and patented

The Thompson Filter, a new, compact, stainless steel irrigation filter has been introduced by Miller-Leaman Inc. The simple design offers an efficient alternative to expensive automatic filters, the manufacturer says.

Available in 2- to 10-inch sizes, the Thompson Filter operates on less horsepower. The filters can handle flow rates up to 2000 gpm and can be used with a manifold. Working pressures are up to 150 psi; screen meshes are available from sizes 30 to 50.

**Circle No. 195 on Reader Inquiry Card**



## Rust stain remover perfect for landscapers

For any landscape contractor who must keep stucco, concrete, wood, stone, masonry and painted surfaces looking bright and new, Miracle Rust Away could help.

Miracle Rust Away contains no hydrochloric (muriatic) or phosphoric acid.

**Circle No. 196 on Reader Inquiry Card**



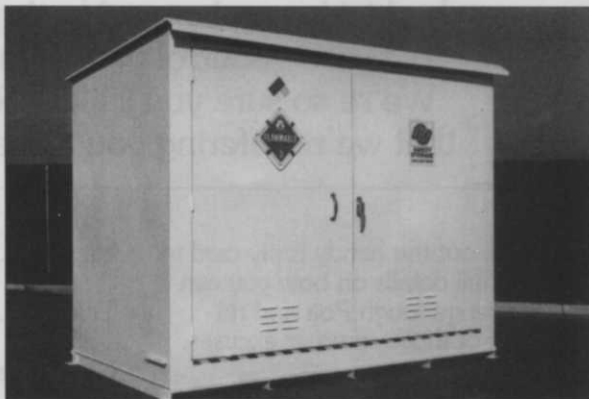
## Chemicals safely secured with storage housing

Safety Storage's Model 10 is a prefabricated, movable steel building for storage and containment during mixing and dispensing of pesticides, fungicides, herbicides and flammable materials.

The buildings are 10 ft. long with up to 59 sq. ft. of floor space. A wide range of shelving and partitioning options permit convenient handling of all types of drums, buckets, bags, boxes and small containers.

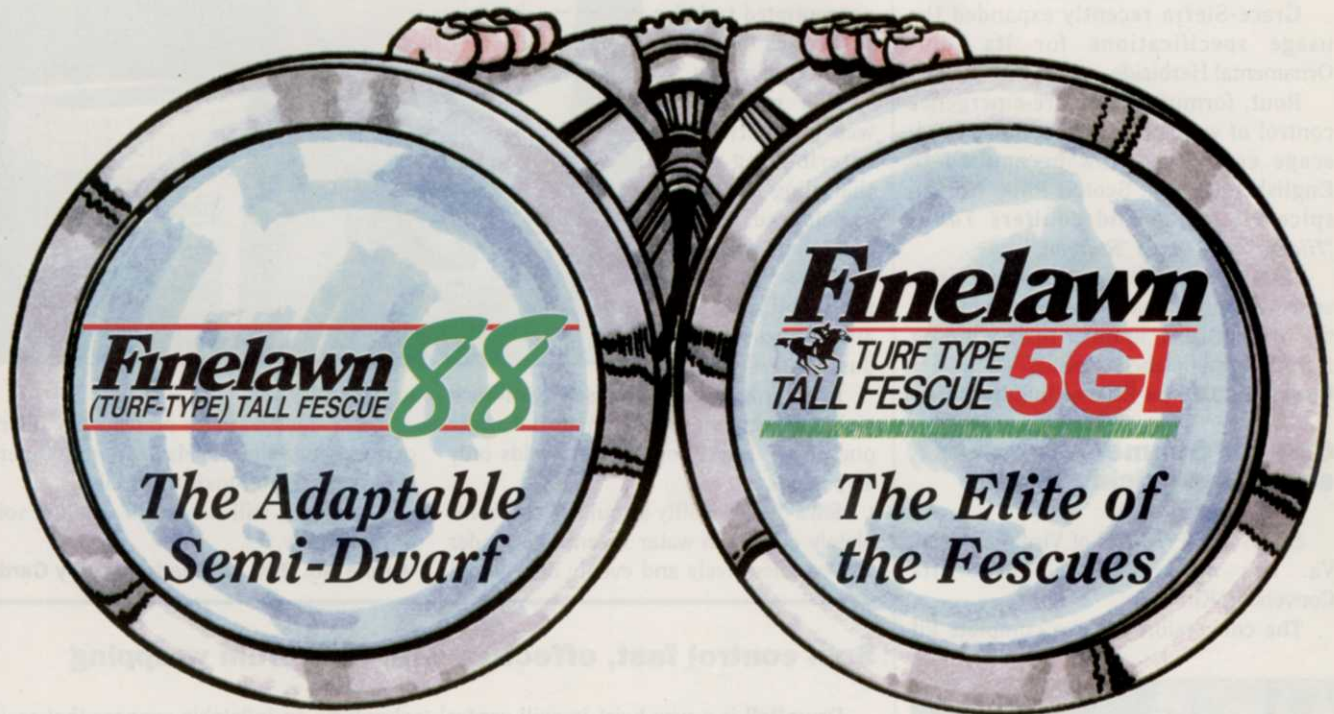
A 222-gallon secondary containment sump, removable fiberglass floor grating and chemical resistant coating are standard.

**Circle No. 197 on Reader Inquiry Card**





# Set Your Sights On These High Powered Performers From Fine Lawn Research.



## Finelawn 88 Semi-Dwarf.

- True semi-dwarf low growth habit
- Tight dense turf
- Establishes quickly
- Extensive, deep root system
- Attractive dark green color
- Moderately fine leaf surface
- Excellent heat and drought tolerance
- Good disease resistance

## Finelawn 5GL Tall Fescue.

- Outstanding heat and drought tolerance
- Excellent resistance to frost and winter freezes
- Grows well in shade
- Very good wear tolerance
- Exceptionally high summer density
- Low growth habit
- Superior resistance to leaf spot and brown patch
- Performs well under low maintenance conditions



*Fine Lawn*  
RESEARCH, INC.

P. O. Box 1051 • Lake Oswego, OR 97034 • TEL: 503/636-2600 • FAX: 503/636-7020

Circle No. 107 on Reader Inquiry Card



# SHOWCASE PRODUCT REVIEW

## Ornamental herbicide now labeled for five more plants

Grace-Sierra recently expanded the usage specifications for its Rout Ornamental Herbicide.

Rout, formulated for pre-emergence control of weeds in ornamental and landscape crops, can now be applied to English Boxwood, Scotch Pine, Korean spice viburnum and conifers *Taxus "Hicksii"* and *Taxus "Runyon."*

Common names for 41 previously-approved species have also been added to the product label, in order to ease grower identification of labeled species.

**Circle No. 198 on Reader Inquiry Card**

## Convert trimmers to power scrubbers quickly, easily

Scrub-Rite Products of Virginia Beach, Va. has marketed the Scrub-Rite Conversion Kit.

The conversion Kit is a complete kit



which transforms commercial gasoline-powered grass trimmers into multi-purpose cleaning machines.

When combined with controlled, high rpm of a commercial grass trimmer, Scrub-Rite's customer-designed brushes can clean just about anything.

**Circle No. 199 on Reader Inquiry Card**

## Tackifier keeps seed, fertilizer and soil in place

Silva-Tack is a concentrated tackifier that boosts the binding power of mulch.

The result is a web-like network of interlocking fibers that cling to the soil to hold seed, fertilizer and soil in place.

Silva-Tack stabilizes soil and sand and controls fugitive dust.

According to Weyerhaeuser, Silva-Tack yields 93 percent soluble material while one of its closest competitors yields only 45 percent.

Silva-Tack's ability to quickly and completely dissolve in water means the binder will be effectively and evenly distributed

to the mulch.

Silva-Tack contains no reducers, fillers or inert ingredients. Made from 100 percent natural, non-toxic materials,

Silva-Tack will not harm wildlife, soil or machinery.

**Circle No. 200 on Reader Inquiry Card**



## Spill control fast, effective with new drum wrapping

DrumRoll is a new twist in spill control technology: an inflatable wrapper that seals leaks instantly till repairs can be made.

DrumRoll has an easily activated CO<sub>2</sub> cartridge that immediately inflates a Teflon-coated bladder to seal the leak.

Fast deployment lessens spill clean up and eliminates the need for tipping and pegging.

DrumRoll fits steel, plastic, and fiberboard 55-gallon drums.

It stops leaks up to seven x two inches and shuts down liquid and granular leaks.

DrumRoll offers companies a reusable training kit to reduce training cost.

Each training kit contains a rugged DrumRoll that can be used for up to 50 applications, 10 CO<sub>2</sub> cartridges a training video and manual.

A mounting bracket is also available and specification sheets available on request.

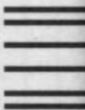


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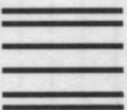
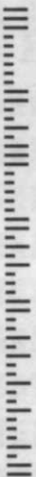
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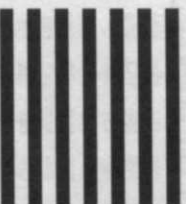


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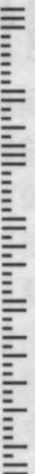
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*...and do we have a conference for you!*

Conference dates: November 14-17  
 Trade Show dates: November 15-18  
 Baltimore Convention Center, Baltimore, Maryland

In conjunction with the GIE trade show, the three sponsoring organizations have concurrent conference education programs for you to mix and match:  
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**ASSOCIATED LANDSCAPE CONTRACTORS OF AMERICA**

**2**



**PROFESSIONAL GROUNDS MANAGEMENT SOCIETY**

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**PROFESSIONAL LAWN CARE ASSOCIATION OF AMERICA**

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Send to GIE Baltimore Conference, 12200 Sunrise Valley Drive, Suite 150, Reston, VA 22091; FAX (703) 620-6365.

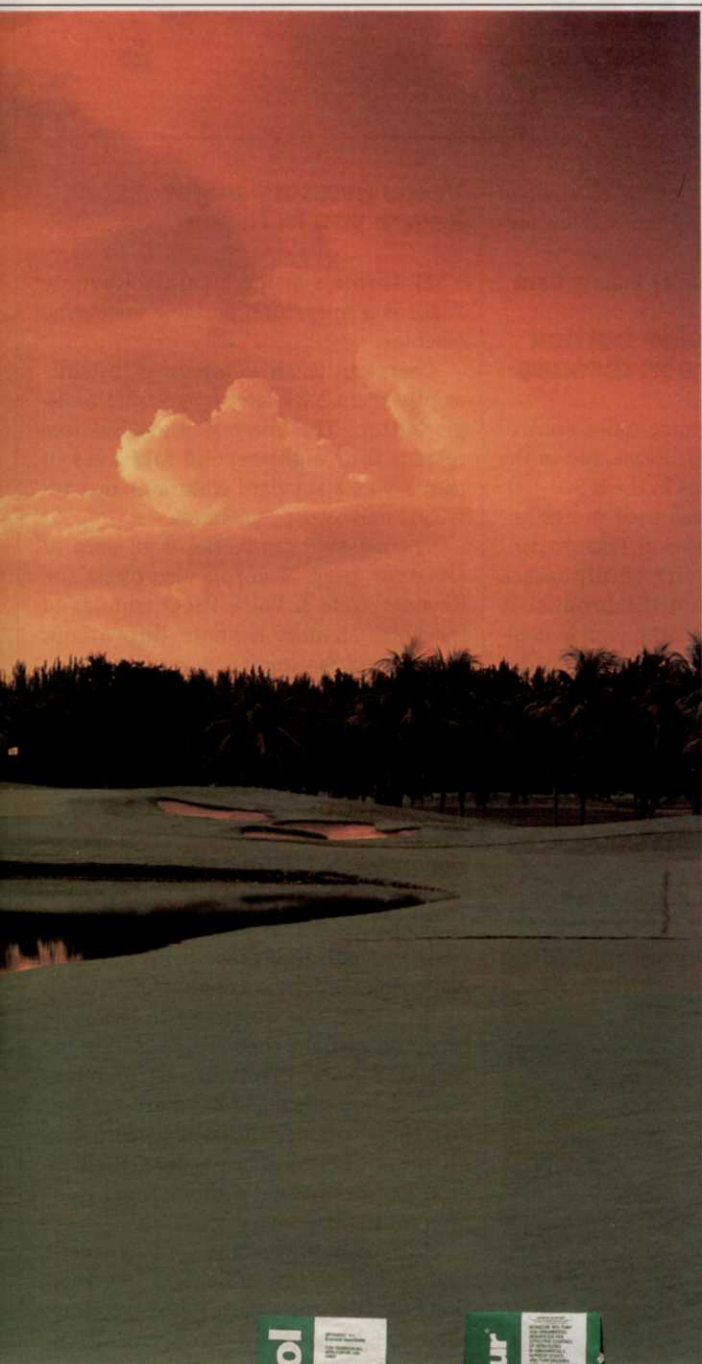






IF YOU'VE FORGOTTEN HOW WELL WE CONTROL MOLE  
CRICKETS AND NEMATODES, CONSIDER THIS  
A REFRESHER COURSE.





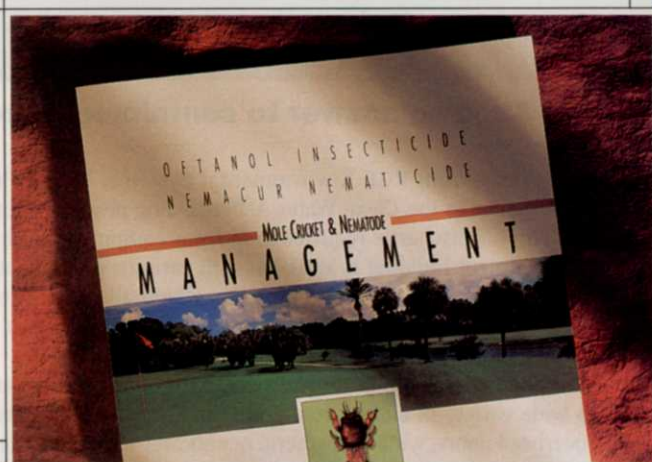
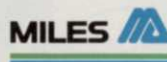
**W**e wrote the book on mole cricket and nematode protection. Now we'd like to send it to you.

In it, we'll show you why there's nothing better for controlling mole crickets than OFTANOL Insecticide. It gives you excellent residual control. It costs about 30% less per 1,000 square feet than the closest competitor. And it stops mole crickets. Plus, it controls fire ants, too.

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Examine the information. Then apply it. And you'll have a course everyone will study.



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# PRODUCT REVIEW

## Golf carts double as cargo transports with add-on rack

Columbia Industrial Division has a Car-Go-Rack attachment to convert Columbia shuttles and Eagle ParCar vehicles.



The rack features include an all-steel cargo frame and a 5/8-inch marine plywood floor with non-slip covering.

**Circle No. 202 on Reader Inquiry Card**

## Systemic fungicide battles oak wilt, Dutch elm disease

Ciba's Alamo fungicide helps control oak wilt and Dutch elm disease, two of the most deadly tree diseases in the U.S.

The systemic has been used successfully for more than two years in Texas to control oak wilt. University of Minnesota research confirms that the product is effective against both diseases, even in cooler climates.

If applied before symptoms appear, Alamo may rescue trees with up to 30 percent crown loss.

Alamo is injected with special equipment into the flare roots. Ciba recommends arborists be consulted to do the injection.

**Circle 203 on Reader Inquiry Card**

## Voice memory pager keeps you in touch

Motorola's Voice Memory Keynote Pager is a miniature, portable answering machine.

Users can listen to messages instantly or play them back later by pressing a single button. The Voice Memory Keynote retains four eight-second messages in memory as a standard feature or two 16-second messages as an option.

The message can be heard at once or saved for later. Motorola also offers the Keynote Tone & Voice Pager, similar to the Voice Memory Keynote, but without the memory capability.

Both Keynote Pagers have an ergonomic, rotary, volume control to adjust sound to different environments.

**Circle No. 205 on Reader Inquiry Card**

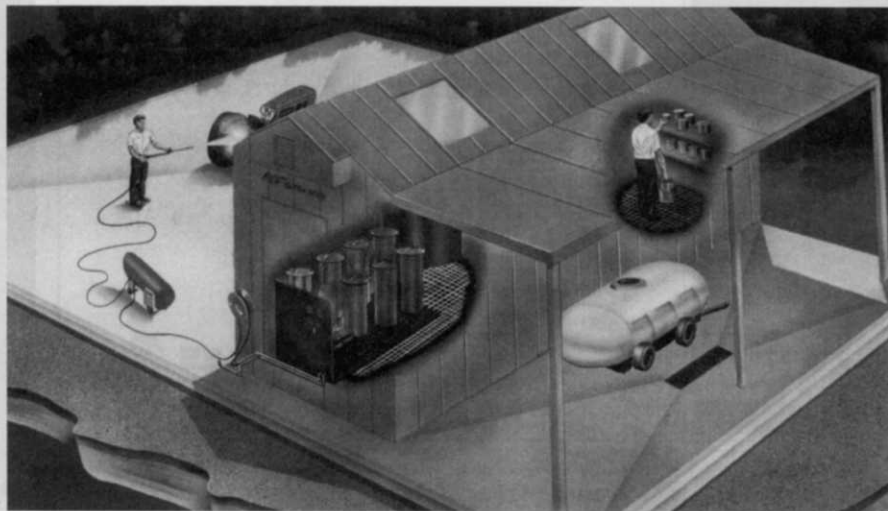
## Turf-type bermudagrass is drought tolerant, dense

Primavera is a new and improved seeded, turf-type bermudagrass from Farmers Marketing Corporation of Phoenix.

Primavera was developed in the same breeding program that is responsible for NuMex Sahara. Primavera is finer textured, darker green and has a greater density than common bermudagrass, says Farmers. Primavera is described as drought tolerant, and with improved stunt mite resistance.

Primavera performed well in recent tests at the University of Georgia. In evaluations for turf coverage, spring green-up, color and visual quality, Primavera ranked at the top of its statistical group.

**Circle No. 206 on Reader Inquiry Card**



## The Ultra-Shed an answer to containment problems

The Ultra-Shed—from RGF Environmental Systems, West Palm Beach, Fla.—was designed in response to the Clean Water Act regarding pesticide storage and mixing and storm water run-off discharge requirements from equipment washing. The Ultra-Shed chemical containment building is available with various permanent pad designs and an optional Ultrasorb, closed-loop recycling system, which allows you to bring your current maintenance equipment washdown and mix/load facilities up to environmental par, while avoiding possible penalties, fines or soil remediation costs.

The Ultra Shed is available in several sizes, with optional overhang, special poly grid flooring, a wide variety of siding, roof and trim colors. Accessorize with extra storage shelving, overhead doors, windows, emergency shower/eyewash systems and pad designs.

**Circle No. 204 on Reader Inquiry Card**

● **WATCH FOR OUR  
1993 BUYER'S  
GUIDE, COMING  
IN SEPTEMBER!**

● **OCTOBER LM  
REPORTS LOOKS AT  
BIO-STIMULANTS**



# MARKET SHOWCASE

**Rates:** \$105 per column inch for 1x insertion; \$100 for 3x insertion; \$95 for 6x insertion; \$90 for 9x insertion; \$85 for 12x insertion (one inch minimum). Frequency based on calendar year. For ads using a Reader Inquiry Number, add \$30 to the total cost of the ad per issue. For ads using a second color standard red, blue, green or yellow only, add \$65 to the total cost of the ad per issue.

**Send ad copy with payment to:** Brian Kanaba, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, Ohio 44130, or call (800) 225-4569 ext. 155 outside Ohio; (216) 891-2665 inside Ohio; FAX (216) 826-2865.

## SOFTWARE

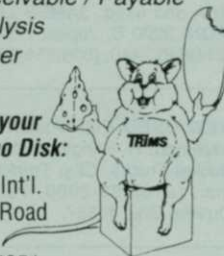
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**Business Management Software for Landscape and Lawn Care Contractors**

- Customer Billing
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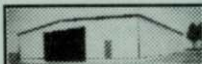
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## BUSINESS OPPORTUNITIES

### LAWNCARE BUSINESSES:

Thinking about selling your Lawncare Business? We'd like to talk about the possibilities. If you are doing business in: Cincinnati, Indianapolis, Columbus, Dayton, Chicago, St. Louis, Atlanta, Cleveland, Detroit or Ft. Wayne, we are interested. All communication is confidential. Reply to LM Box 500, c/o LANDSCAPE MANAGEMENT, 131 W. 1st St., Duluth, MN 55802-2065.

## COMMERCIAL EQUIPMENT

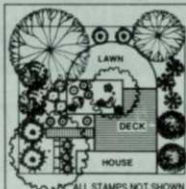


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Landscape Management Software

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for

### LAWN CARE OPERATORS

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Richard P. Bersnak, President

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Jeanne Bartkus

Circle No. 301 on Reader Inquiry Card

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**NEW/USED EQUIPMENT AND RENTALS—**  
Asplundh, Hi Ranger, Holan and Lift-All Forestry Bucket Trucks, Chip Trucks and Chippers. Mirk, Inc., (216)669-2000, 7629 Chippewa Road, Orrville, Ohio 44667. TF

**SPYDERS-** New/Used/Rebuilt. Full line of replacement parts and update kits. Kubota, Ruggerini, Kohler and Onan engines and parts. Nichols-Fairfield torque hubs. We repair and rebuild Spyder hydraulic pumps and motors. **FAST SERVICE.** Call or write: Mobile Lift Parts Inc., 5402 Edgewood Rd., Crystal Lake, IL 60012. (815)455-7363, (800)397-7509, FAX (815)455-7366. 8/93

Vermeer Truck-Mounted Tree Spade, 66 inch, on a 1969 white truck. Dakota Dunes Development Company, Dakota Dunes, South Dakota, 57049. (605)232-3001. 8/93

**FOR SALE:** Jacobsen HF-5 Diesel, \$4,000. Also, Toro GM-3 Greens Mower, sharpened new reels, \$2,300. National 84" cut \$1,100. Jacobsen 5 Gang Blitzer Mower, sharpened \$3,600. 313-653-5695. 8/93

**REINCO HYDROGRASSERS** and power mulchers in stock. Opdyke Inc., (Philadelphia Area) 215-721-4444. TF

**BUSINESS OPPORTUNITIES**

**STRENGTHEN YOUR BUSINESS AND GET HONEST RESULTS.** 25+ years experience in lawn & tree care advertising, budgeting, programs (organics, too), IPM, planning, training (admin. & field), pesticides, etc. Why go in circles? Call now! **CORNELL ASSOCIATES, 301-293-3605 "IN UNITY IS STRENGTH".** 8/93

Long-term established Lawnscape and Garden Center Business plus 4,000 sq. ft., 4-bedroom 2-bath home on 2 acres in area of nice homes. Ample room for expansion. Central Oregon location. \$300,000. (503) 536-3200. 8/93

\$3,000-\$6,000 per month. Electrically driven **Curbmate Machine** installs beautiful concrete lawn edging. Simple business. Low overhead. High profit. Increase your landscaping profits and beautify your landscaping jobs. 801-262-7509. 9/93

**NOW...** Learn professional landscaping and gardening at home. Accredited program provides thorough training in all phases of commercial and residential landscaping. Diploma awarded. Free brochure describes program and opportunities in detail. Call 800-326-9221 or write Lifetime Career Schools, Dept. LF0183, 101 Harrison St., Archbald, PA 18403. 9/93

**NaturaLawn® of America** provides the Green Industry a successful, growth oriented, lawn care program. Discuss the opportunities available to you by calling the leader in **organic-based** lawn care. The franchise opportunity of the 90's. 800-989-5444. 7/93

**EDUCATIONAL OPPORTUNITIES**

**IMPROVE PROFITS & expand business** with well-trained, professional employees. Free catalog of over 100 training videos from California Polytechnic State University. Perfect for landscaped companies, grounds crews, designers, etc. Call VEP at 1-800-235-4146. 12/93

**EQUIPMENT FOR SALE**

**PIPE LOCATOR INEXPENSIVE!** Locates, traces underground drain, water pipe lines of clay, PVC, ABS, steel, cement. Finds sprinklers, valves, clogs. Bloch Company, Box 18058, Cleveland, Ohio 44118. (216)371-0979. TF

One Mercedes Diesel, Model 1113, 1983. 1,200 Gallon 2 compartment stainless steel tank. Holds 1,000 lbs. dry fertilizer. Hydro-sell 25 gallons PSI pump. 2 reels with guns, 50,000 miles, all records kept. \$9,800. 201-891-6035. 8/93

**BUCKET TRUCK:** Hi Ranger 65', 57', 50'. Sky-workers with chip boxes. Asplundh bucket trucks with chip boxes. Asplundh brush chippers. Bean 55 gal. sprayers. Pete Mainka Enterprises, 633 Cecilia Drive, Pewaukee, WI 53072. 800-597-8283. TF

**Finn Hydroseeders, Mulch Spreaders, Krimpers, Pit Burners, Fiber Mulch & Tackifiers.** New & Used. **Wolbert & Master, Inc.,** P.O. Box 292, White Marsh, MD 21162. 410-335-9300, 1-800-234-7645. TF

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is available in  
LANDSCAPE MANAGEMENT!**

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216-891-3155  
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**Use our Blind Box Service for Confidential Results  
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## EQUIPMENT FOR SALE

**BUCKET TRUCKS:** Straight Stick, Corner Mount and Knuckle Boom Cranes. Brush Chippers - New Morbark Disc and Drum Style. New Rayco Stump grinders. Best prices anywhere. Used Chippers - Asplundh, Morbark, etc. 2 to 8 usually in stock. Sprayers, Dumps, Stakes, Log Loaders, Crew Cab Chip Box Dumps, Railroad Trucks, 50 in stock. Sold as-is or reconditioned. We also buy your surplus equipment. Opdyke's, Hatfield (Philadelphia Area). 215-721-4444. TF

Commercial Mowers -Dixie Choppers- World's fastest lawnmowers. **Valco Rental and Equipment.** Canton, OH 44706 (216) 452-6646. 8/93

## FOR SALE

For Sale: One FMC Stainless Steel, 1,000 gallon tank with mechanical agitation. 3 years old. \$5,500 or best offer. (717) 696-4606. 8/93

**LAWN SEED:** Wholesale. Full line of top quality grasses. Improved bluegrass varieties, tall fescues and fine bladed ryegrasses. We specialize in custom mixing. Oliger Seed Company, 89 Hanna Parkway, Akron, OH 44319. Call collect (216)724-1266. OH, PA, WV, MI, IN. TF

**MEYER Z-52 ZOYSIA SOD FOR SALE. VAMONT AND TUF COTE BERMUDAGRASS SOD. FORKLIFT DELIVERY. SERVING THE MID-ATLANTIC REGION. OAKWOOD SOD FARM, SALISBURY, MD 410-742-3086. 10/93**

## EQUIPMENT FINANCING

**FINANCE** your new or used **EQUIPMENT** acquisition through **LEASING**. Advantages include: no down payment, 100% tax deductible, flexible terms, fast approval. Call **TRIDENT Leasing** 412-325-3464 / FAX 412-325-3466. 8/93

## HELP WANTED

**PARKS AND FORESTRY SUPERVISOR** - City of Pasadena, CA (Salary: \$3,659-4,574/mo. plus City pays 7% employee's contribution to retirement). Seeking individual w/4 years of progressively responsible maintenance experience in parks, street tree or landscape management, 2 yrs of which in related supervisory capacity. Graduation from an accredited college with specialization in arboriculture, horticulture, forestry, Entomology, plant pathology or related fields is considered desirable and may substitute for 2 years of non-supervisory exp. **Special Conditions:** State of California Agricultural Pest Control Advisors License in categories A, B, C, D, E and G desirable. Possession of valid Class C California Driver's license is req. at time of apmt. For more details and for city applications, contact: City of Pasadena, Human Resources Dept., 100 N. Garfield, Rm 146, Pasadena, CA 91109; (818) 405-4366. **Deadline: 5:30 p.m. 9/13/93. EOE/AA.** 8/93


**Searching for the right employee? Time for a new position?** Contact **Florapersonnel, Inc.**, international search and placement firm for the landscape, irrigation industries and allied trades. **Confidential. Fee paid by employer.** Florapersonnel, Inc., 2180 W. 434, Suite 6152, Longwood, FL 32779-5008. Phone: (407)682-5151 Fax: (407)682-2318. TF

## HELP WANTED

**SALES REPRESENTATIVE:** Manufacturer of Professional Liquid Fertilizers, Micronutrients and Natural Organics looking for qualified individuals with a high degree of horticultural knowledge (B.S., M.S. in horticulture or proven experience) and sales experience. We are currently establishing territories nationwide. You will be representing a company that provides its customers with quality service. The individual needs to be self-motivated and responsible. Must be willing to call on many market areas, including nurseries, greenhouses, golf courses, tree care companies, distributors, phone sales and some traveling. Send resume to: Growth Products, Ltd., PO Box 1259, White Plains, NY 10602. Attn: Personnel Dept. 8/93

**NEW OPPORTUNITY:** The Orkin Plantscaping Division (interior and exterior landscaping design, installation and maintenance service) is looking for Managers and Service Managers. Qualifications include: experience in the lawn-care or landscaping fields, education and/or experience in the horticultural field, and management or supervisory experience. If you would like to investigate a change in your career please send your resume to Gordon Crenshaw, Orkin Plantscaping, 2170 Piedmont Road, Atlanta, GA 30324. Or call (404) 888-2801. 9/93

## Classified Advertising Increases Your Sales!

 **send a Classified Advertising message...  
...write here.**

(Please Print) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1. Number of insertions: (circle) 1 3 6 12 TF (Till Forbid)
2. Start with (month) \_\_\_\_\_ issue. (Copy must be in by 1st of month preceding).
3. Amount enclosed: \$ \_\_\_\_\_ (To keep our rates as low as possible, payment must accompany order)

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

NAME \_\_\_\_\_ COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

**Mail ad copy to:** Brian Kanaba, **Landscape Management**, 7500 Old Oak Blvd., Cleveland, OH 44130 or call 216-891-3155.

**RATES:** \$1.25 per word (minimum charge \$40). Boldface words or words in all capital letters charged at \$1.50 per word. Boxed or display ads \$105 per column inch, one time; \$100, three times; \$95, six times; \$90, nine times; \$85, twelve times (one inch minimum). (Frequencies based on a calendar year). For ads using blind box number, add \$20 to total cost of ad per issue.



## HELP WANTED

**MANAGEMENT:** Leading franchisor of lawn and tree care services seeking a self motivated, people person to fill a Franchise Support Rep. position. Must have a college degree and be willing to travel. Benefits include: good base salary, major medical, life ins., 401K and bonus opportunities. Mail resume to: Spring-Green Lawn Care Corp., P.O. Box 2828, Naperville, IL 60567 8/93

**LANDSCAPE MAINTENANCE:** San Francisco East Bay area with Commercial operations, large accounts, seeks a full time **CHEMICAL APPLICATOR** with California license to perform IPM and Standard Chemical activities on all accounts. Excellent salary & benefits package. Resume with employment history to Personnel Manager, LM Box 501. 8/93

**LANDSCAPE SUPERVISOR:** Jack's Nursery, a growing, well established company, is seeking a self-motivated, professional manager to handle the operations of our commercial & residential landscaping division. Must have good people skills with 3-5 years hands-on supervisory experience. Send resume to: 894 Robert Boulevard, Slidell, LA 70458. EOE 10/93

**GROUNDS MAINTENANCE AND PLANTING FOREMAN:** Well established landscape contractor in the Philadelphia area is seeking experienced quality foremen to fill various positions. Salary and benefits commensurate with experience. Forward resume to: Personnel Office, Heyser Landscaping, Inc., 400 N. Park Ave., Norristown, PA 19403. 8/93

**LANDSCAPE MAINTENANCE & GENERAL SUPERINTENDENT:** Largest landscape maintenance company in the nation seeking individuals with 3-4 years experience. Must be able to make decisions, be creative, self-motivated, organized with strong supervisory skills. San Francisco Bay Area location. EOE. Please send resume to: Environmental Care, Inc., 825 Mabury Road, San Jose, CA 95133. 11/93

**SALES PROFESSIONAL:** Hermes Nursery, an expanding producer and seller of high-quality material, is seeking a self-motivated, aggressive, and dependable professional to lead our sales efforts. 2-4 years sales experience, a horticulture or related degree and/or green goods experience; and a strong customer-service orientation are preferred qualities for this position. Excellent growth opportunity. Salary and commissions are based on experience and performance. Send resume and salary history to: Hermes Nursery, Attn: Personnel Director, PO Box 14336, Lenexa, KS 66215. 8/93

**Landscape Maintenance Supervisor:** Large Building Service Company seeks individuals knowledgeable with equipment and plant material. CDL and Pesticide License preferred. Salary, year round position, benefits and advancement opportunity. Call 1-800-548-6063. 8/93

**HORTICULTURE-CORNELL COOPERATIVE EXTENSION,** Rockland County, **Thiells, NY (3/4 time).** Commercial hort/related environ, educ, programs. MS, 3 yrs. exp. Send letter of intent, resume and transcripts by September 1 to: Box 26, Kennedy Hall, Cornell University, Ithaca, NY 14853. EOE 8/93

**7 U.S. REGIONAL SALES REPRESENTATIVES** for top rated Landscape Software. Excellent opportunity to add a second product line. Established reps preferred. Resume and cover letter to Software Representatives, c/o PO Box 3456, Palm Desert, CA 92261. Open until filled. 8/93

## SOFTWARE

Route Manager System for scheduling and accounts receivable record keeping. Serving the Lawn Care Industry since 1982. List price \$350. Fortunate Computers, 46 N. 4th Street, Coplay, PA 18037. 800-275-0620. 12/93

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☞ **RATES:** \$1.25 per word (minimum charge, \$40). Bold face words or words in all capital letters charged at \$1.50 per word. Boxed or display ads: \$105 per column inch-1x (one inch minimum); \$100-3x; \$95-6x; \$90-9x; \$85-12x. (Frequencies based on a calendar year).

Agency commissions will be given only when camera-ready art is provided by agency. For ads using blind box number, add \$20 to total cost of ad per issue.

Send ad copy with payment to:

Brian Kanaba,  
LANDSCAPE MANAGEMENT,  
7500 Old Oak Blvd., Cleveland, OH 44130  
or call 216-891-3155. Fax Number 216- 826-2865.

VISA MASTERCARD and AMERICAN EXPRESS accepted.

☞ **BOX NUMBER REPLIES:** Mail box number replies to:  
**LANDSCAPE MANAGEMENT**, Classified Ad Department,  
131 W. 1st St., Duluth, MN 55802-2065.  
Please include box in address.

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## For everything it doesn't do.

— Dacthal doesn't let you down. It means healthier turf and a difference you can see. And that makes you look good with your customers.

— Dacthal doesn't leach, because it isn't water soluble, and it's biodegradable, too.

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\*Of uniform greening and 1 to 2 inches in height.  
Always follow label directions carefully when using turf chemicals.  
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Get the benefits of

# Wildflowers

and  
the experience  
of Lofts

Marie  
Pompei



**Wildflowers!** They're a beautiful, low-maintenance alternative to mown turf. And no one can help you choose wildflowers better than Marie Pompei at Lofts.

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**Wildflowers need very little care.** So they're perfect for roadsides, parks, golf courses, estates or industrial sites. They're ideal for areas that are hard to mow. Or any place that needs color. Try low-maintenance, natural wildflowers as your colorful alternative to high-maintenance turf. And get your wildflowers from Lofts.

Lofts has been a leader in the seed business since 1923. In fact, Lofts introduced Pinto as one of the first commercial wildflower mixtures.

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