

THE VOICE OF THE GREEN INDUSTRY

# LANDSCAPE *management*

FEBRUARY 1997 • \$4

**How to buy a  
mower**

**Perfect  
perennials**

**Early-season  
fertilization**

**Products**  
reach new heights in '97

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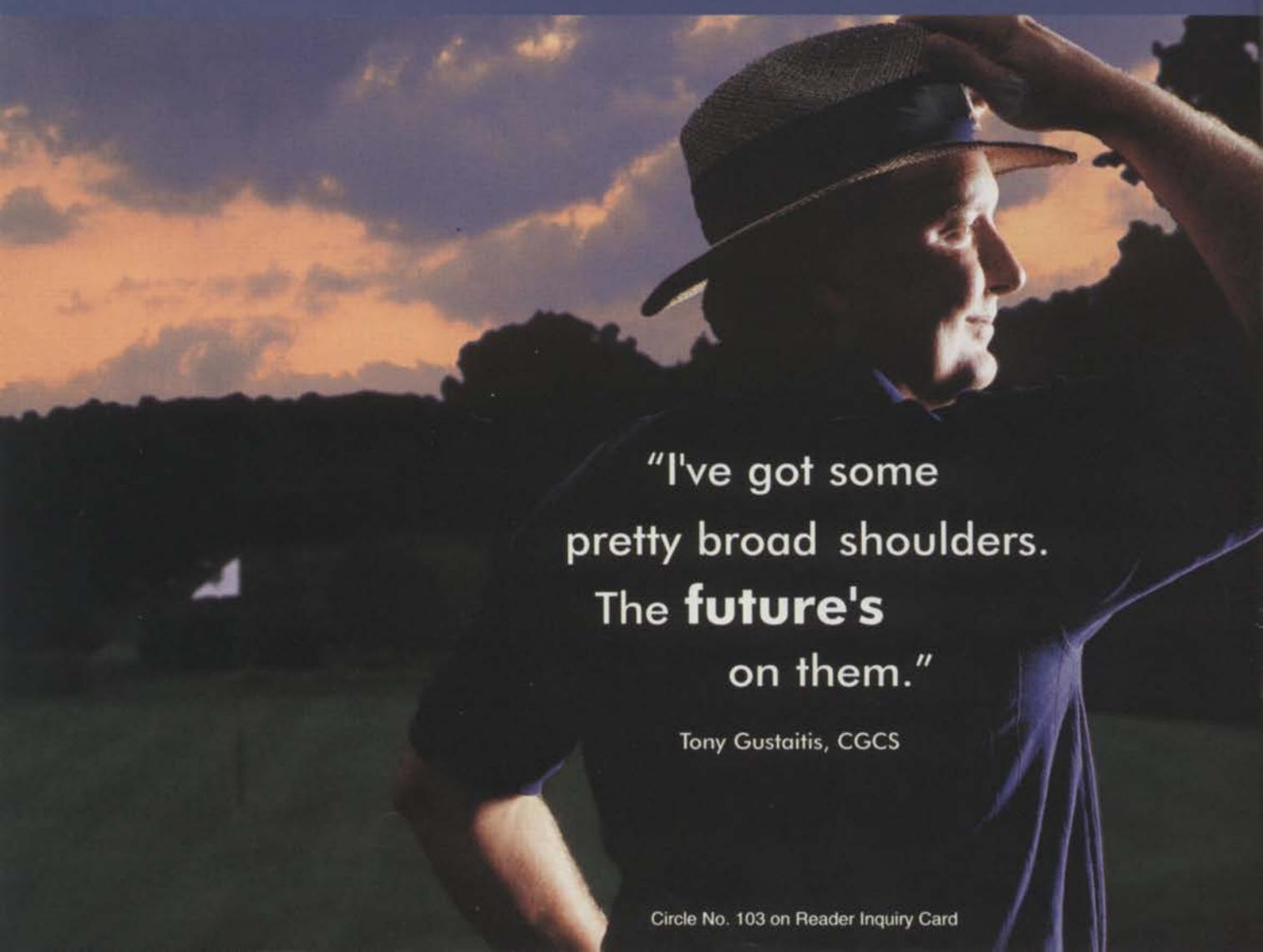
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pretty broad shoulders.  
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on them."

Tony Gustaitis, CGCS

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# LANDSCAPE management

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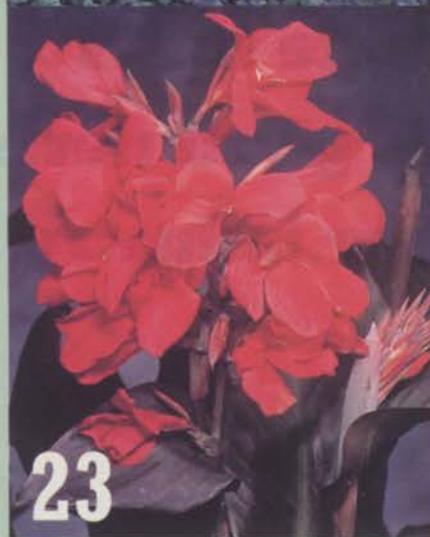
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# LANDSCAPE

**W**ord from the Professional Lawn Care Association of America as we went to press: the Department of Transportation has just helped cut down on lawn care operators' paperwork.

HM-200—the rule that covered LCOs who carry specific quantities of hazardous materials—has been modified. Operators no longer have to meet training, emergency response phone number and shipping paper requirements, effective Oct. 1, 1997.

## Late news is good news for industry



*Terry McIver*

**TERRY McIVER**  
Editor-in-Chief

"Until now, even if you carried over ½ gallon of gas in your truck, you had to have shipping papers," explains Tom Delaney, PLCAA director of government affairs.

"Through phone calls and comments to the *Federal Register* by PLCAA members and attendees at PLCAA's Legislative Day-on-the-Hill in Washington, D.C., the Association was able to put pressure on the Department of Transportation to make this change."

Gasoline containers must be made of metal or plastic and conform to Occupational Safety and Health Agency requirements, which are less stringent than DOT requirements.

"LCO's will also no longer have to conform to state and federal regulations regarding transport of 400-gallon-size tanks or smaller mixed with two percent or less concentration of a Class 9 material, which covers certain pesticides," says PLCAA.

The point is not that product applicators want to abolish any and all regulations, just those that are unfair, impractical, or redundant.

The American Association of Nurserymen reports ergonomic guidelines to prevent "repetitive motion" injuries will be more of an OSHA concern this year.

It's too early to call this bad news, so for now, we'll hope it's good news. It will remain in the "good news" category if resulting guidelines are sensible and workable. For example, the AAN cites a 1994 attempt at ergonomic-related legislation, which wanted to prevent "lifting or carrying anything weighing over 25 pounds without assistance more than once during a workshift."

Once again, no one wants to ignore legitimate worker concerns. I have them, too. As someone who uses a typewriter—excuse me, *keyboard*—regularly, I must say carpal tunnel syndrome is a concern of mine. But I know the ergonomic guidelines that prevent it, and it's up to me to follow them. I also worked a job that required lots of heavy lifting, but I knew when to call my friend Arnold over to help me.

Cleveland-based **Freedonia Group** predicts demand for commercial lawn and garden equipment will hit \$1.2 billion per year by 2000.

Growth, says Freedonia Group, will come as a result of:

- ▶ favorable demographic trends;
- ▶ a positive outlook for new golf course construction;
- ▶ expanding state and municipal spending;
- ▶ commercial and multi-family home construction;
- ▶ high levels of equipment replacement from golf course superintendents, municipal maintenance crews and professional landscape firms.

**Responsible Industry for a Sound Environment (RISE)** tells us that legislation proposed in New Hampshire will allow local control of pesticides. It's all in the interest of "home rule," a form of government New Hampshireites seem to prefer.

As did a lot of other people, way back in 1776. **LM**

**Comments? Write Terry at** 7500 Old Oak, Blvd. Cleveland, OH 44130; **phone him at** (216) 891-2709, **fax him at** (216) 891-2675 or **e-mail him at** lscape@en.com.

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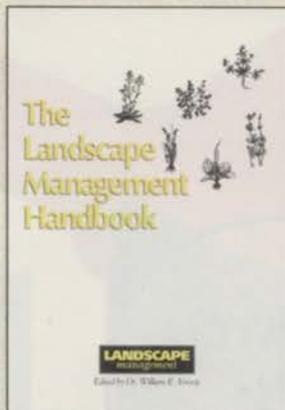
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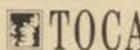
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## Scales infest oaks

*We are finding scale-like structures on twigs, as well as on the trunks of our oak trees. They are mostly grouped, generally laying one over the other. The areas where they are found are slightly sunken. Some have small, black dots on the center of what looks like a scale cover. What are these? How do we manage them?*

—MARYLAND

From your description it appears that your problem is related to a scale and most likely it is obscure scale. Obscure scale is commonly found on species of oak, chestnut and hickory. They have also been reported on beech, maple, dogwood and willow. Obscure scale is most prevalent in the southern United States.

With one generation per year, obscure scale completes growth around mid August on white oak and mid July on red oak. On pin oak, the crawler activity peaks during July then declines, only to have another surge in August.

Managing obscure scale is difficult because the scales grow in clusters with one laying on the other. The layers make pesticide penetration to the target crawlers difficult. Also, they lay eggs over a long period of time and there is an extended period of crawler activity. Crawlers can settle under the layers of scale clusters; therefore, they are not readily exposed to insecticide treatment. They overwinter in the partly grown adult stage (second instars).

There are a few parasites and predators of this scale that may be effective as biological agents or you can treat the infested trees with horticultural oil. Thorough coverage of twigs and trunks is needed. Because they grow in clusters, the horticultural oil may not penetrate deep enough to manage all of the scales. Therefore, in the spring treat again with insecticides such as Malathion or Sevin. Of course, read and follow label directions.

Scientists are researching the feasibility of using systemic products such as Merit insecticide to manage scales. Continued research should help answer questions in managing these difficult and destructive pests.

## Stumped over sprouts

*Some clients do not want their stumps to be removed by grinding. Quite often we find sprouts growing from cut surfaces. In some cases we even find suckers on the roots. How can we manage these problems?*

—MICHIGAN

Use Roundup in an undiluted form or up to a 50 percent solution with water to manage sprouts growing from the cut surface of a stump. Treatments should be made immediately after cutting the tree. Apply Roundup on the cut surfaces along the edges of the trunk on the cambial layer. Use a hand sprayer. There is no need to apply all over the stump. Recutting the stump and then treating may be re-

quired if there is more than a one-hour delay.

Roundup may not be effective if a tree is removed during winter. Pathfinder II (Garlon, which contains trichlopyr) can be used. Generally, this may require a different type of pesticide applicator license, so make sure you have the proper license.

To manage sprouts on cut stumps near a body of water (ponds, rivers, streams, lakes), consider formulations such as Accord or Rodeo. Roundup can't be used near a body of water. Again, make sure your pesticide applicator license allows you to use these products.

## Do organics leach?

*Do organic fertilizers, such as the one containing powder blue, leach? Do we need to apply more fertilizer in sandy soils than we would use in clay soils? Or, should we increase the frequency of fertilization?*

—NEW YORK

Organic fertilizers containing powder blue can leach to some degree, but at a much lower extent and not so readily as the inorganic quick-release fertilizers. When using the above product in sandy soils, use the recommended rate but increase the frequency of your treatment schedule. This to compensate the fertilizer loss due to leaching through sandy soils. Where feasible, incorporate some organic mulches through methods like vertical mulching.



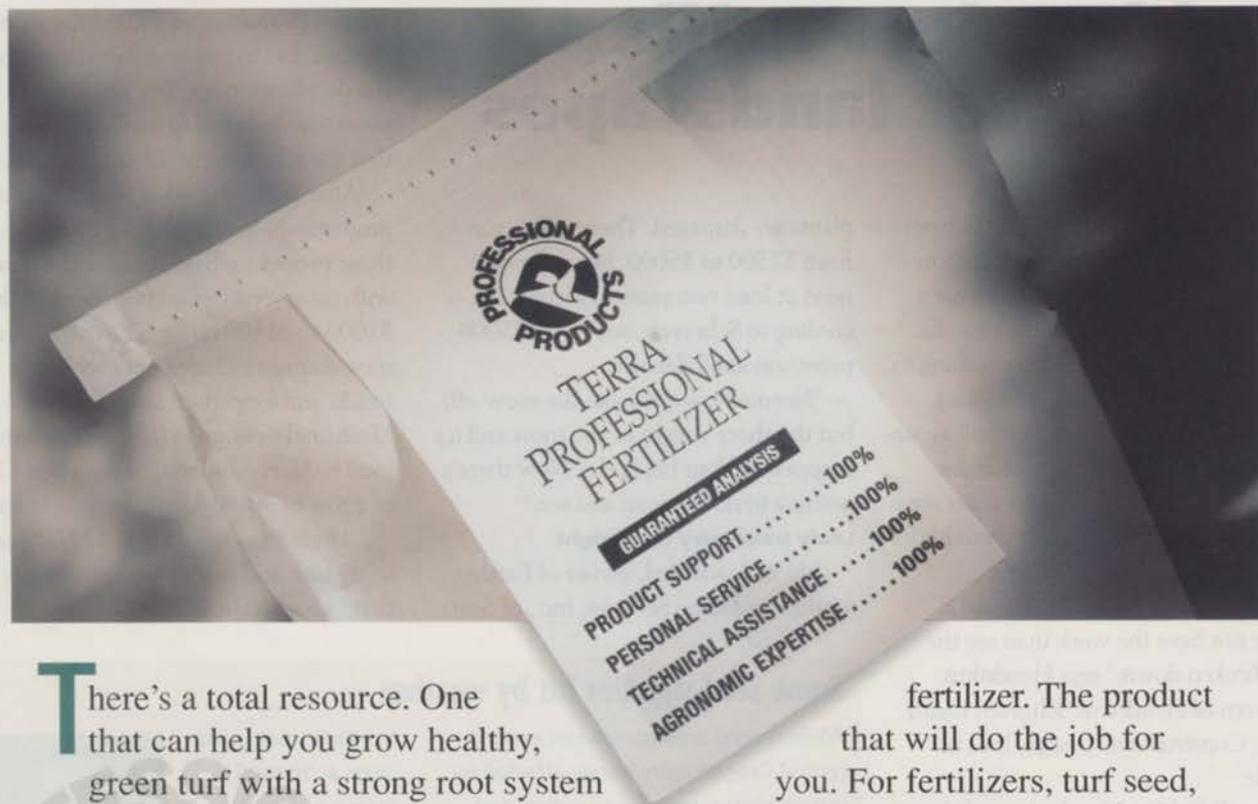
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# Weather bends, buries and breaks Pacific Northwest landscapes

by LESLEE JAQUETTE

**SEATTLE, WASH.**— Combine a November snowstorm with a Christmas snowfall of 16 inches, mix in a New Year's Eve windstorm and you have a Pacific Northwest landscape industry rushing to evaluate damage and calculate losses.

Seattle, in King County, as well as surrounding Washington State counties have been declared national disaster areas after heavy snow, flooding and mudslides caused \$250 million in damage.

"There's a ton to be done, but I'd rather not have the work than see the trees broken down," says Hendrikus Schraven of Hendrikus Schraven Landscape, Construction, Design, Inc., of Seattle.

"It will feel like blood money. I'd rather see everything survive."

Analyzing the effects of the worst series of storms in five years, Schraven estimates 40 percent of his mature nursery

**Tree damage was the most visible sign of damage after wind storms hit the Seattle area. Wet snow added to the damage later.**



plants are damaged. These plants run from \$2500 to \$5000, but will now need at least two years to recover. According to Schraven, one of his \$5000 pines was annihilated.

"Normally, we'd shake the snow off, but the sheer weight of the snow and ice snapped off four big limbs. Now there's nothing to do but wait and see."

## Leafy trees carry the weight

Mike Moschatel, owner of Earthworks Landscape Services, Inc., of Seat-

tle, notes the November storm—which dropped around eight inches of wet snow—probably committed the worst damage due to leaves still remaining on the deciduous trees. The December snow was drier but in such quantities that the effects were almost identical.

After surveying 40 of his 150 clients' properties, Moshcatel reports half of those properties have significant damage, with most repair estimates falling in the \$1000 to \$1500 range. The most common damage includes trees with split trunks and lopped off tops. One of Moshcatel's commercial accounts—the local K-Mart—suffered badly when 13 of a row of 30-40 ft. maples split in half.

"These trees would cost \$20,000 each to replace, and no one's going to pay that," says Moshcatel. □

## Some seed supplies hit by weather

While several seed companies in north central Oregon were barely affected by recent winter storms, one major seed producer experienced significant damage and lost production.

Jerry Pepin, general manager of Pick-Seed West, says the Tangent, Ore., company lost 10 percent of new tall fescue and perennial ryegrass as a result of heavy rain and snow over the Christmas holiday.

While this figure represents 25 to 30 percent of new plantings, the total amount of established field loss runs around two percent. Estimated total loss looks to be about three to five percent.

Pepin remembers that last year's perennial ryegrass crop was down due to equally disastrous weather. After two years of substantial flooding, Pepin estimates the 1997 crop could see

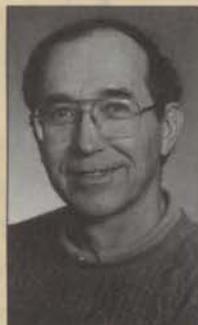
a price increase of as much as 10 to 12 cents per pound.

"It's a farming operation," says Pepin. "We take our chances with nature; growing grass is no different."

Tom Stanley, marketing director of TurfSeed, Hubbard, Ore., says the company seed supply is relatively untouched by the storms, with less than five percent damage to production fields.

Dave Nelson, executive secretary of the Oregon Seed Council in Salem, adds that his area also survived in good shape.

"Although some fields were inundated, the rain subsided soon enough to avoid submerging the plants for days or weeks," says Nelson. L. J.



**Jerry Pepin: 'We take our chances with nature.'**

# West coast nurseries survey storm damage

by LESLEE JAQUETTE

California nurseries, some of whom supply landscape companies across the U.S., have delayed harvesting deciduous and orchard trees due to heavy rains in late December.

"Not only have rains prevented digging of bareroot trees in the state," says Ross Hutchings, executive administration director of the California Association of Nurserymen, headquartered in Sacramento, "but in some cases rains have forced nurseries to wash off roots and re-spray."

During the same cluster of storms, Washington and Oregon nurseries were spared for the most part, says Jeff McIvor, director of marketing and communications for the Oregon Association of Nurserymen.

During the second week of January, nurseries that use container-bound plants were not showing major losses, but Hutchings reports that some grow-in-the-ground nurseries have harvested as little as 10 percent of their bareroot crop, when normally 80 to 100 percent would be dug and shipped by early January.

Hutchings reports that Sierra Gold Nursery in Yuba suffered much damage when the staff was forced to evacu-

ate the premises with only 10 percent of its deciduous crops harvested.

A majority of the crop at the Dave Wilson Nursery in Hickman and Reedley, Calif., was pulled out of 'heeling-in,' which means the trees must be pulled out, washed and re-sprayed at considerable added expense.

## Soggy profits

Hutchings could not comment on how the weather damage will affect prices of nursery stock. He did suggest, however, that it will be hard for some individual nurseries to show a profit.

"On the upside, in a few years, we may see people re-landscaping in response to the storms."

Despite strong winds in excess of 60 mph, Southern California's Monrovia Nursery Co.—one of the largest nurseries in the U.S.—has survived with only minimal damage.

General Manager Jim Poorbaugh notes only minor problems caused by the relatively warm weather. He credited the company's experience in handling bad weather.

Poorbaugh says four of 12 hoop houses and a polypropylene shade were torn from their bases. Al-

though these will have to be replaced, the plants are fine, with no cold or sun damage. In addition, there were no water problems due to plentiful rainfall prior to the winds.

"The winds inconvenienced us because lack of electricity in the office re-

duced productivity," says Poorbaugh.

"It's an irritation to clean up, but the quality of the plants didn't suffer." □

## Feds satisfied: BF/TG-CL deal moving forward

The acquisition of Barefoot, Inc. by ChemLawn parent company ServiceMaster is a step closer to completion, now that the mandatory waiting period has expired.

The Federal Trade Commission and Department of Justice have not requested further information, thus satisfying the government-imposed requirements needed to close the transaction.

As of January 10, ServiceMaster needed to register its shares with the Securities and Exchange Commission. The tender offer will begin upon fulfillment of this requirement. Closing of the transaction is contingent upon participation in the tender offer by the holders of at least 75 percent of Barefoot's 14.5 million outstanding shares.

Barefoot is the nation's second largest lawn care company, with more than 500,000 system-wide customers, spanning 103 metropolitan markets, with 53 company owned markets, 50 franchises, and annualized customer level revenues in excess of \$125 million.

TruGreen-ChemLawn is the nation's largest lawn care company, with customer level revenues of more than \$630 million, serving 2.5 million customers through more than 260 service centers across the country.

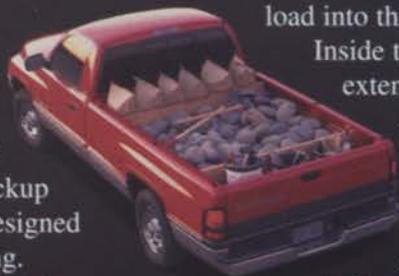
ServiceMaster reports it has more than 6 million customers in the U.S. that use its various service companies, including Terminix, Merry Maids and American Home Shield. □



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† We calculated resale using avg. trade-in values for '94-'95 full-size models vs. MSRPs, published in Jan.'95-July'96 N.A.D.A. Official Used Car Guide® monthly editions.

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## Via mail, e-mail, fax, etc.

### Asian group a good work force

I enjoyed your article [on Hispanic laborers] in the Oct. 1996 *LANDSCAPE MANAGEMENT*. I am a retired priest of 8 years and play golf about twice a week. I have worked as a priest with 5000 migrant workers in the 60s and 70s for 15 years. They were mostly asparagus, onion, potatoes, sugar beet workers. At the time I worked with them not many got beyond the third grade. Many could not read or write. Television allowed many older people to

learn English, mostly watching soap operas on rainy days.

They were a poor, but happy people. Not many of the luxuries of our affluent society, just enough to stay alive and move from state to state to harvest a crop for us who were more affluent. I never met a lazy migrant worker in 15 years.

I might mention there are 19,000 Hmong people now living in the Twin Cities. They, too, are people of the land, now in the flow of city life. They, too, are good workers,

never lazy, but farm oriented. No doubt they too could fit into the green environment program.

*Fr. John F. Cody, St. Paul, Minn.*

### Wages must increase!

All I've read about this past year in all my trade magazines is about Mexican labor this and that.

If you are American born and bred, you know the hard facts of life in America:

Fact #1: You cannot support yourself, apartment, car, gas,

insurance, food, phone, utilities and clothes (not including health insurance, girlfriend, a family or maybe even a life) working for \$5-\$6-\$7 dollars an hour. You have a calculator, do the math.

There are plenty of American men and women that love to work outdoors and would love to work in all areas of the green industry. What stops them? Fact #1! Americans are a lot of things, but we're not that stupid.

There are a lot of companies who hire and train competent

**JACKLIN**  
Seed Company

Advent perennial ryegrass isn't only beautiful — it's resilient. To heat. Drought. spring after spring. All of which makes Advent an excellent choice for home



American people and actually pay them a decent wage for their efforts. They understand if you want to live and stay in America you have to earn a certain amount of money.

Corporate America has been using cheaper labor for years, laying off Americans and moving operations to some sweat shop in Asia. Corporate America never once said "We cannot fill these positions." They readily admit they can make more money and compete in our markets by moving and hiring foreigners.

More money, more company profits are the only rea-

son for hiring cheaper labor. Stop blaming hard working Americans who care about themselves and their future. Shut up and bite the bullet.

Change will only start with you and me. Remember your American parents. Just because all your friends are jumping off the bridge, will you?

*Jerome A. Lesak, J.L. Land Development, Kirtland, Ohio*

#### Web site request

I would like to see a question and answer "Bulletin Board" section where people can tell their story or talk about certain

green industry subjects. You could also include a monthly test where one could answer questions related to green industry topics. It would be a good way for you to get a handle on what users know and don't know. I am generally satisfied with what I find on other green industry web sites, however, it is difficult to search for specific things. By the time I find something I'm interested in, I have spent too much time looking. Some links in your web site to other web sites would be great.

*Blake Moore, Utah*

#### Omission noted

The December disease control article only listed Daconil (chlorothalonil) as the product to use for various turf and ornamental disease control problems. Echo chlorothalonil fungicides—which compete directly with Daconil—were not mentioned. I ask that you add a supplemental note or article in your future editions recognizing our Echo products.

*A.C. Assad, business manager, Sostram Corporation.*

*(LM regrets any inconvenience caused by the omission.*

*Look for a thorough disease control article in May. ed.)*

Stress. And the worst kind of summer conditions you'll find around the world. So it keeps bouncing back, lawns, golf course fairways, tees, roughs — any place where you need a great comeback.

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advent  
TURF-TYPE PERENNIAL  
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# They're hot, they're here!

*Exciting new product releases promise to help make turf and landscape management more efficient and productive.*

by GARY BURCHFIELD

**M**ost of you will feel the budget squeeze again in 1997. That's why you're always looking for ways to handle tasks faster, easier, more economically and still please homeowners, commercial clients and golfers.

Check out these products before the season really gets underway. You may find something among these new offerings that's going to make a big difference in your operation for 1997.

#### **Insect control advances**

Mach 2 will make grub and caterpillar control easier. It's a product of RohMid LLC, a marketing company formed by

American Cyanamid and Rohm and Haas. Dr. John Thomas, Mach 2 marketing manager, says the new product has three major advantages:

- ▶ preventive as well as curative effect on susceptible pests. Existing products typically do one or the other, but not both;

- ▶ control of two major insect classes, the coleopterins (grubs and chafers) and the lepidopterins (sod webworms, cutworms, armyworms);

- ▶ outstanding environmental and health safety profile. The EPA is reviewing Mach 2 under the "reduced risk" fast-track process.

Mach 2 will be available in liquid formulation this season, granules and Mach 2-fertilizer combinations in 1998.

DowElanco's Conserve SC (suspension concentrate) is also on the EPA's "reduced risk" fast track and is expected to be labeled for the turf and ornamental market by the third quarter of 1997.

Mark Urbanowski, new product marketing manager, says Conserve SC tests, under its Experimental Use Permit label in 1996, led to "very positive feedback" from users.

Primary markets for Conserve, Urbanowski says, are golf courses for control of cutworms and armyworms, and the

lawn care industry for control of sod webworms and armyworms. It will also be used to control up to a dozen different pests on ornamentals.

Conserve SC is in a new chemical class called "spin-osyns" which kill insects through ingestion or on contact. It has the properties of a biological control product, with the efficacy of a synthetic.

#### **Low use rate, wide control**

Golf course superintendents and sod growers will welcome a new fungicide, Heritage, about to be released by Zeneca Professional Products.

The active ingredient in Heritage is azoxystrobin, a compound patterned after a natural fungicide discovered in mushrooms in Europe.



**Thomas: no watering in with Mach 2.**

**Rogers Innovative sprayer shroud cuts chemical drift.**





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PTO clutch makes it possible to engage and disengage PTO driven implements on the move.

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The F-60 Series includes 22, 25 and 30 horsepower 4-wheel drive mowers as well as a 25 horsepower 2-wheel drive model.

If you're looking for the ideal combination of comfort, power and efficiency for your team, you've just found a winning line-up.

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Manage provides 'one dose' nutsedge control, says Monsanto.

Zeneca's Dr. Dave Ross says Heritage:

- ▶ provides broad spectrum control of brown patch, *Pythium*, anthracnose, take-all patch, summer patch and snow mold;

- ▶ has an extended use interval of 14-28 days;

- ▶ has a low use rate: 2- to 4-ounces of product per 1000 sq.ft.;

- ▶ will gain EPA registration under "reduced risk" status.

#### Spray drift reducer

Rogers Innovative, Saskatoon, Saskatchewan, is expanding marketing efforts for its Windfoil front-mount sprayers. The Windfoil unit replaces the mower deck with a spray tank and boom unit which covers 5-foot spray swath or up to 12-ft. 6-in. swath with the wing model. Rogers Innovative also offers a 15-ft. spray boom unit for use on golf courses, as well as hose-fed walking booms in widths from 30- to 80-inches.

#### Bio control via irrigation

Eco Soil Systems of San

Diego, Calif., developed an on-site "fermentation vessel" and piping to inject control bacteria into the golf course irrigation system. Superintendents lease the system from the company, which services the tank monthly to re-inoculate the system with fresh bacteria cultures and replenish the media.

Doyle says the company has licensed a special strain of bacteria—*Pseudomonas*

*aureofacean*—from Michigan State, which is showing good control of *Pythium*, summer patch, dollar spot and anthracnose. Other bacteria cultures are available for combatting nematodes and other turf disease problems.

#### Weed and feed

Commercial turf managers who like the action of DowElanco's Confront broadleaf weed control, but prefer granular application, can opt for O.M. Scott's 30-5-5 Fertilizer Plus Confront. Confront has proven effective against the common broadleaves, plus giving good control of clover, oxalis and spurge. The Scotts formulation is the only one which offers Confront in granular form.

Scotts is introducing two additional granular fertilizer/herbicide combinations. One will be a 14-0-14 formulation, the other 0-0-15, both with Monsanto's Dimension pre-emergence herbicide for crabgrass, goosegrass, foxtail and barnyardgrass control.

DowElanco's Team Pro—an improvement over the company's Team product—is used to manage broadleaf weeds, such as spurge and oxalis in warm- or cool season turf.

Monsanto's Manage, for yellow and purple nutsedge is available this year in "one dose" water soluble packets. Manage can be used on any turfgrass, including sod or seeded areas

once they are well established.

Riverdale Chemical Company has readied two broadleaf herbicides—Cool Power and Horsepower. By combining the DowElanco active triclopyr with a phenoxy herbicide and dicamba, the strengths of three different chemistries are used to control broadleaf weeds.

Cool Power and Horsepower combine MCPA, tri-

## Seed more resistant

Turf-Seed is bringing out five new perennial ryegrass varieties, says Tom Stanley, director of marketing. They are: Cataline, Manhattan 3, Citation III, Roadrunner and 2M3. Two tall fescues, Matador and Tar Heel, are also new, along with Opti-Green bluegrass and Discovery hard fescue, Tiffany chewings fescue and Sea Breeze slender red creeper.

Jacklin Seed Company has two new bluegrass varieties this summer, Award and Nuglade.

"These new grasses may well make bluegrass fairways feasible again," says Jacklin's Dr. Doug Brede say. "They tolerate low cutting height and heavy use, but don't thatch up their first year or two like A34 or Touchdown."

#### Built-in insect control!

Brede says Jacklin also is working on a new endophyte fungus strain they located in Asia, which is being tested in one of their new bluegrass varieties. "If the tests continue to go the way they have so far, within two or three years we may be offering a Kentucky bluegrass with built-in control for cutworms, webworms and armyworms, along with resistance to fungus such as dollar spot, and with high drought tolerance."

Besides relocating their corporate headquarters to Winston-Salem, North Carolina, Lofts Seed is coming out with a new billbug resistant Kentucky bluegrass this year, called Eagleton. Vicki Wallace, Lofts technical agronomist, says Eagleton showed up well in Rutgers University trials and NTET tests.

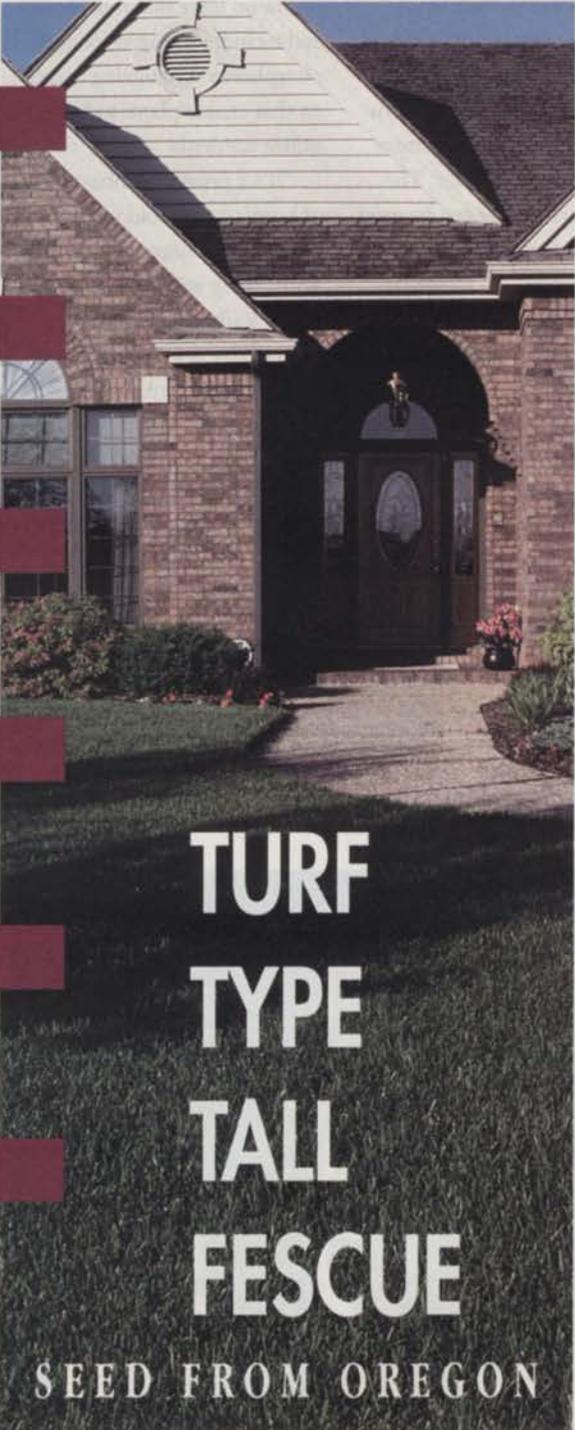
"It's a Mid-Atlantic type bluegrass, but it's widely adapted across the country," Wallace says. Lofts also is introducing two new perennial ryegrasses in 1997: Palmer III and Prelude III.

#### Low maintenance buffaloes

Buffalograss is a way to lower the cost of turf care inputs. For the first time, commercial quantities of seeded buffalograss are available. Using materials developed by Dr. Terry Riordan at the



Stanley: five new perennial ryegrasses.



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clopyr and dicamba for improved performance on hard-to-control weeds such as clovers, spurge, oxalis, wild geranium and wild violet.

Cool Power is an ester formulation, designed for greater efficacy in cool weather. The amine Horsepower can be used in warmer temperatures.

#### Turf 'booster'

Turf managers this year have a new "biostimulant" product to boost grass performance. The

product, BioEdge WSP is marketed by Terra Industries in water soluble packets for easy tank mixing with other fertilizer and/or pesticides.

Bob Yarborough, Terra's northern division professional products

manager, says BioEdge enhances soil microbial activity, promotes increased root growth and includes nitrogen-fixing and phosphorus-solubilizing bacteria that enable plants to better utilize nutrients.

"It's a proven combination of humic acids, cold water kelp, natural sugars and amino acids, along with beneficial bacteria," Yarborough says.

BioEdge is available in two formulations: BioEdge WSP 0-0-12 and BioEdge WSP (Fe) 0-0-3, with 10 percent chelated iron. "The initial market has been golf courses, but we expect more professionals to use it on other turf areas this year," says Yarborough.



Yarborough: expects wider use for product.

Terra also intro-

University of Nebraska, the **Native Turf Group** is offering two varieties of seeded buffalograss: Cody and Tantaka. According to Dave Stock of Stock Seed Farms, Murdock, Neb., the new varieties are based on research begun in 1988, with the goal of developing true turf-type buffalograss that develops thicker sod, greener color and which greens up faster in the spring.

Stock says there is growing interest in buffalograss, especially in areas where water is a critical factor. "Of course, with seed, cost of establishing buffalograss is greatly reduced. Seeding will run \$1,000-\$1,300 per acre, whereas putting in plugs can run up to \$10,000 per acre."

For those who need or prefer vegetative buffalograss, Rordan says the new turf-type varieties show improved quality, thicker sod development (both to reduce weed growth and improve harvesting capabilities for sod producers), more tolerance for low mowing height and better cold tolerance.

G.B.

duces a golf course mapping program to help superintendents make more precise fertilizer and pesticide applications. It's known as Precision in Turf.

#### Save time, costs

Ciba's Primo continues to gain popularity with turfgrass managers. Dr. Joe DiPaolo, Ciba Turf & Ornamental Products, says Primo reduces mowing time by slowing grass growth, but it's also an excellent product for improving overseeding and sod establishment.



DiPaolo: Primo helps sod establishment.

"Applying Primo one to five days before overseeding slows turf growth, giving the new seed a better chance to germinate and get established. We've seen increased 'seed catch' of 50 percent to 100 percent. Likewise, putting it on sod two weeks before harvest slows top growth, promotes tillering and enhances color and density,"

says DiPaolo.

#### Roadsides an easy mow

The Polecat, from TK Industries in Laramie, Wyo., is the brainchild of Bob Kenison, a former mining engineer. It mows around poles and on both sides of guard rails, fences, barriers or mail boxes.

Units are in use in California (where roadside herbicides are banned) and around Denver's new airport.

Looking for a versatile digging machine in 1997? Consider the **The Dingo**

**Digging System**, "a hydraulic power plant on wheels," with more than 30 attachments to choose from. Dingo reports that most attachments can be changed in less than a minute by one person. Dingo is headquartered in Fort Mill, S.C. **LM**

—Writer Gary Burchfield is based in Lincoln, Neb.



The Polecat mows around poles and on both sides of roadside structures. They're already being used in California and Colorado.



Scag: cutting heights easy to change from driver's seat.



Excel: 2500 compact is built with high-capacity mowing deck.



Grasshopper: outfront decks reduce secondary trimming.

## ZERO-TURN MOWERS

**These mowers increase productivity with their quick maneuvering ability and compact design.**

Over the last 25 years, commercial, zero-turn riding mowers have been gaining market share, as evidenced by the number of manufacturers producing them today and the large number of machines operating on properties.

The Outdoor Power Equipment Institute (OPEI) reports that almost half of the commercial riding mowers sold during 1993 were transmission steer (lever steering) zero-turn type machines.

### More productive

Operators routinely claim doubling the amount of mowing output after changing from midsize walk-behinds or conventional steering wheel riders to zero-turn riding mowers.

Of course, the production gain depends on the type of areas being mowed, but generally, landscaped turf with combinations of small and open turf areas is "typically" where zero-turn riding mowers have an advantage.

Production gains are the direct result of increased maneuverability:

- ▶ ability to quickly maneuver, with very little lost motion, means the mower spends more time "in the grass."
- ▶ ability to maneuver in tight areas, which reduces travel time.
- ▶ ability to maneuver easily, which facilitates trimming and covering irregular-shaped areas.

### Reduce or maintain labor

Increasing productivity gives zero-turn operators two options: reduce their labor force or maintain it and grow their businesses. Either way, labor savings easily offset the higher purchase price of a zero-turn rider and the investment to train workers to operate a "lever steering" machine (a common objection of "steering wheel" proponents).

Some zero-turn owners claim it is actually easier to teach proper operation of a lever-steering rider than a midsize walk-behind.

SOURCE: WALKER TALK, USED BY PERMISSION OF WALKER MFG. CO.

## ZERO-TURN MOWERS

### BUNTON (502) 966-0550 Circle No. 250

The new "Twister" zero-turn mower features a new, innovative finger-tip, electric, deck height adjustment. The feature lets the operator make quick and easy deck height adjustments, based on various situations, such as curbs, sprinkler heads, or tree roots. Ergonomic, contoured seat and control panel provide exceptional all-around visibility of cutting deck and all four tires.

### BUSH HOG (334) 460-2595 Circle No. 251

New Bush Hog zero-turn mowers deliver top appearance and efficiency, says the Mobile, AL.-based company. Engine options include air-cooled, 18-hp Briggs & Stratton, or 22-hp, Kohler Command engines; or 20-hp Kawasaki engines.

### COUNTRY CLIPPER (515) 872-2544 Circle No. 252

The new mid-mount, zero-turn radius mower—Model 2200M—maneuvers well and has cutting widths of 48- and 60-inches. It offers the same high production capabilities of larger mowers, says the Corydon, Iowa company. Overall length is 74-inches, tire width is 48-inches.

### ENCORE (402) 228-4255 Circle No. 253

Encore's new Z48 is built with features that improve cutting performance and durability. Zero radius turning adds efficiency to mowing, and eliminates the need for small trim mowers. The rider is compact enough to maneuver in confined areas. Wide wheel base and oversized rear wheels give exceptional stability on hills.

### EXCEL (800) 395-4757 Circle No. 254

The 2500 Compact mower is built with high-capacity, deep-tunnel mowing decks. Hydraulic deck lift is standard, and a 22-hp Kohler Command engine provides the power. Excel says the 2500 Compact has "the world's fastest edger attachment." The mower turns within its own length, on counter rotating, independent drive wheels.

A BAC-VAC catcher installs quickly and is easy to remove and empty. The Excel Hustler 3000 features an air-cooled Kohler Command engine.

### EXMARK (402) 223-4010 Circle No. 255

The Lazer Z is a zero-turn mid-mount with hydraulically-dampened steering, for smooth control. A low center of gravity and wide drive-trace stance provide exceptional traction and unmatched stability. An Instant-Adjust system lets the operator easily change cutting heights from 1-1/2 inches to five-inches from the comfort of the fully-adjustable seat.

### FERRIS (800) 933-6175 Circle No. 256

The newest mower to the Ferris line is the Pro Cut Z zero-turn riding mower. The Pro Cut Z features an



exclusive, dual-point floating front end. Two mounting joints in the front axle allow vertical travel at each wheel. The company says the mower will provide an unbeatable cut on uneven terrain.

### GRASSHOPPER (316) 345-8621 Circle No. 257

The Model 725K from Grasshopper is the company's largest air-cooled unit. The mower is powered by a 25-hp Kohler Command V-Twin OHV engine for extra power to optional equipment. The 725K is compatible with all Grasshopper decks, including the Combo Mulching Deck, which is available for all Grasshopper dual-path, hy-

drostatic direct-drive, zero-radius power units.

### KEES (402) 223-2391 Circle No. 258

The Kees Hydro provides smooth, positive and responsive fingertip control for instant forward, reverse and turning without slippage on inclines or in wet conditions. The results are increased productivity and greatly reduced operator fatigue.

### RANSOMES (800) 228-4444 Circle No. 259

Ransomes' Bob-Cat ZT 200 offers true zero-turn capability. Tires are 23 x 10.50-12 for increased floatation. The wide design means peak performance on hills. A 22-hp Kohler command engine with dual hydrostatic drive brings power to

the task at hand, and six anti-scalp rollers produce a quality cut.

### SCAG (414) 387-0100 Circle No. 260

The SSZ is available in 48-, 52- and 61-inch cutting widths, and cutting heights can be conveniently changed from the operator's seat. Engine options include 18-, 20- or 22-hp Kohler Command models. Additional features include a convenient electric blade engagement clutch, tapered roller bearing spindles and an oversized five gallon fuel tank.

### SNAPPER (770) 954-2500 Circle No. 261

The Snapper Z-Rider line of mid-mount mowers offer joystick steering and maneuverability. Snapper Z-Rider have been designed to serve the varying needs of commercial users. Fingertip maneuverability is possible due to the single-lever joystick that enables point-and-go steering. A pivoting front axle and 20-inch rear tires help to provide maximum traction and stability.

### STEINER (330) 828-0200 Circle No. 262

The Model 202 "floats" over uneven terrain with a unique

mower deck that flexes and moves, for an even and clean cut. The cushioned hydrostatic levers give operator smooth control with minimal training. Twin hydrostatic controls provide a steady ride and smooth power, while a single park lever and cutting height handle allow for fast, easy adjustments.

### TORO (612) 888-8801 Circle No. 263

The Z Master is a out-front type, zero-radius tractor. The Z320 is equipped with a 20-hp Kohler Com-



mand vertical shaft engine. The Z325 has a 25-hp Kohler Command vertical shaft engine. With a forward ground speed of up to eight miles per hour and a reverse speed of four miles per hour.

### WALKER (970) 221-5614 Circle No. 264

Walker zero-turn mowers are easy to clean and maintain, thanks to the new tilt-up deck option. A hinged deck carrier frame, large retractable handle on front of the deck and roller wheels on the back provide quick, easy tilt-up of the deck assembly. One person can tilt the deck up and then lower to the normal operating position in less than 15 seconds.

### ZIPPER (316) 775-7766 Circle No. 265

The Zipper TS commercial mower decks swing into the near vertical position for easy, time saving maintenance and cleanup. The electric deck lift makes curbs and obstacles a snap to crossover. **LM**

# New perennials ADD VARIETY

by STEPHANIE COHEN

Landscape contractors, designers and architects are always looking for 'the perfect perennial,' which they expect to excel in the following categories:

- ▶ long season of bloom;
- ▶ very little insect or disease problems;
- ▶ adaptable to a wide variety of soil types and climates;
- ▶ low maintenance, little dead-heading, staking, fertilizing and dividing;
- ▶ great looking foliage from spring to fall;
- ▶ more than one season of interest.

This miraculous plant in reality doesn't exist unless your materials are made of plastic! However, for both commercial and residential sites there are some perennials that come close to these high expectations. Please remember that the following sug-

gestions are my preferences, and each person in the field is very likely to give you a different list. Perennial people are a very feisty and opinionated group.

Most of the perennials listed below can fulfill the requirements mentioned before. Commercial landscape designers must also consider drought tolerance, since many plantings have no sprinkler systems and are not generally watered. For either commercial or residential work, plant in rather large drifts for maximum effect with those plants that have a long season of bloom.

## Shade plant favorites

One of the areas that I feel is now exploding is shade plants. There are now many new cultivars of Heucheras ('Velvet Knight', 'Chocolate Ruffles', Raspberry Regal'), Heucherellas ('Rosalie', 'Bridget



Veronica 'Icicle'



Ajuga and tiarella

Bloom'), Lamiums ('White Nancy', 'Shell Pink', Elizabeth de Haas'), and Pulmonarias ('Pierre's Pure Pink'). These provide good foliage color and interesting flowers.

There are always new Hostas, but 'Patriot' seems to be high on the list of what has been selling.

As far as sun plants, there are always great new daylilies on the market, particularly rebloomers:

- ▶ 'Stella de Oro' and her siblings
- ▶ 'Joan Senior'
- ▶ 'Stephanie's Dream'
- ▶ 'Fairy Tale Pink'
- ▶ 'Barbara Mitchell'
- ▶ 'Happy Returns'

Dr. Darrel Apps and Centerton Nursery are selecting and selling daylilies with a high bud count of 30 or 40 buds which they call "Trophy Taker" daylilies. This is a change from the old-fashioned kind that barely bloomed two or three weeks.

There are now many more cultivars of our sun-loving native herbaceous flowering plants and grasses. Many of those listed are natives because they are easy care plants once they are established. Certain cultivars

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<i>Scabiosa columbaria</i>	'Butterfly Blue' or 'Pink Mist'	Pincushion Flower
<i>Rudbeckia fulgida</i>	'Goldsturm'	Black Eyed Susan
<i>Kalimeris pinnatifida</i>	'Hortensis'	Japanese Aster
<i>Achillea</i>	'Apple Blossom'	Yarrow
<i>Calamintha pepeta</i>	'White Cloud'	Calamint
<i>Leucanthemum maximum</i>	'Becky'	Shasta Daisy
<i>Eupatorium maculatum</i>	'Gateway'	Joe Pye Weed
<i>Gaura lindheimeri</i>	'Whirling Butterflies'	Wand Flower
<i>Heliopsis x helianthoides</i>	'Summer Sun'	
<i>Monarda x</i>	'Marshall's Delight' or 'Jacob Cline'	False Sunflower
<i>Phlox paniculata</i> 'David'	'Shortwood'	Garden Phlox
<i>Lamium maculatum</i>	'Shell Pink'	Dead Nettle
<i>Dicentra eximia</i>	'Luxuriant'	Fringed Bleeding Heart
<i>Corydalis lutea</i>		Yellow Bleeding Heart
<i>Geranium</i>	'Max Frei'	Cranesbill
<i>Iberis sempervirens</i>	'Autumn Beauty' (reblooms in fall)	Candytuft
<i>Nepeta cultivars</i>		Catmint
<i>Malva sylvestris</i>	'Zebrina'	Rose Mallow
<i>Veronica</i>	'Goodness Grows', 'Icicle', 'Sunny Border Blue'	Speedwell
<i>Hemerocallis</i>	'Trophy Taker' daylilies	



Rudbeckia and miscanthus dominate this residential site.



Variegated grasses with daylily.

are better because—in the case of *Phlox* or *Monarda*, they get little or no mildew.

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*The author is an instructor in herbaceous plants at Temple University, and education director for Waterloo Gardens, Devon/Exton, Pa.*

## Perennial sources

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|--|--|
| Greenleaf Enterprises<br>17 W. Main St.<br>Leola, PA 17540<br>(717) 656-2606         | Kurt Bluemel, Inc.<br>2740 Greene Lane<br>Baldwin, MD 21003<br>(410) 557-7229                          |
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| Northcreek Nursery<br>RR#2, Box 33<br>Landenberg, PA 19350<br>(610) 255-0100         | American Ornamental<br>Perennials<br>29977 S.E. Wentz Lane<br>Eagle Creek, OR 97022<br>(503) 637-33095 |
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SOURCE: AMERICAN DAYLILY & PERENNIALS, (816) 224-2852; FAX: (816) 443-2849.

# Bio weed control's promise

*The work of Dr. Nick Christians and others at Iowa State University is unlocking the potential of "natural" weed controls.*

by RON HALL/ Managing Editor

**W**hen Dr. Nick Christians started working with corn gluten meal 11 years ago he wasn't looking for a "natural" weed control. In fact, he wasn't looking for a herbicide at all. He was doing experiments focusing on *Pythium*.

What he discovered, though, has since developed into one of the first commercially available "natural" pre-emergence herbicides for the turfgrass market. It provides a valuable, if still expensive, tool for turf managers.

It's also the first in what is certain to be a family of natural herbicides for turf and other crops too. Iowa State University has gained patents on the use of corn gluten meal, and other natural products, in the manufacture of these pre-emergence products. All of this resulted after Christians discovered that something in corn gluten meal, which he was using as a laboratory growing medium, inhibited root development in germinating plants. "It seemed to be a growth regulator effect," he explained.

He noticed that after normal germination, the bentgrass plants toppled over and died. This occurred as growing conditions dried. He identified the

source of the activity as corn gluten meal (CGM), a by-product of the wet milling process of corn.

But what was it about the CGM that he was using, which was 60 percent corn protein, 10 percent nitrogen by weight, that caused germinating plants to die?

The question kicked off months of painstaking laboratory work by Dianna Liu, a talented student who had just finished her masters in food chemistry. Liu first developed a water soluble CGM extract. It contained a high level of the inhibitory compounds. From this extract, Loo was able to identify five distinct compounds that had biological activity in the CGM extract. They are called dipeptides. (Since then, Liu has also isolated a promising pentapeptide from CGM.)

Products arising from these discoveries are now entering the turfgrass market. Because the CGM is 10 percent nitrogen by weight, it fertilizes turfgrass as it provides weed control.

Gardens Alive, a company specializing in natural products, was the first to gain a license from Iowa State to market a CGM-based pre-emergent/fertilizer combination for turf. It called the product A-Maizing Lawn. One application—20 lb.

per 1,000 sq. ft.—in the spring provides 2 lbs. N, plus the natural herbicide. A second application in mid August provides added control plus another 2 lbs. of N. The Indiana company sold the product mail order the past two seasons. Sales were stronger than expected, said Christians, despite the product's hefty price tag.

Iowa State is in the process of licensing others to market the natural pre-emergence product. The price should fall, he explained. Even so, it can't compete pricewise with chemical pre-emergence.

"It's going to expensive," said Christians. "If you want to use a standard weed and feed, you can do it cheaper.

"It's not going to be like a standard such as pendimethalin or whatever you happen to be using that gives 90 percent control the first time."

In fact, the corn gluten meal's activity seems to be cumulative. Christians' field tests showed 60 percent control of crab grass with the first season's application, about 80 percent for second-year applications and 90 percent the third.

Further studies have shown that the CGM product has activity against many broadleaf weeds too, including black medic, black nightshade, chickweed and dandelions. **LM**

**COMPARISONS OF THE PERCENTAGE OF CRABGRASS CONTROL IN KENTUCKY BLUEGRASS PLOTS TREATED WITH GRANULAR CORN GLUTEN MEAL (CGM) IN 1991 THROUGH 1995.**

lbs. CGM 1000 sq. ft.	lbs N 1000 sq. ft.	Percent Crabgrass Reduction				
		1991	1992	1993	1994	1995
0	0	0	0	0	0	0
20	2	58	85	91	70	36
40	4	86	98	98	97	88
60	6	97	98	93	98	93
80	8	87	93	93	87	75
100	10	79	94	95	86	75
120	12	97	100	100	98	84

**COMPARISONS OF THE PERCENTAGE OF BROADLEAF WEED REDUCTION IN KENTUCKY BLUEGRASS PLOTS TREATED WITH GRANULAR CORN GLUTEN MEAL (CGM) IN 1994 AND 1995**

lbs. CGM 1000 sq. ft.	lbs N 1000 sq. ft.	Percent Weed Reduction			
		CLOVER		DANDELION	
		1994	1995	1994	1995
0	0	0	0	0	0
20	2	81	56	71	49
40	4	90	64	100	77
60	6	98	93	100	89
80	8	100	76	98	96
100	10	94	84	100	98
120	12	90	93	100	100

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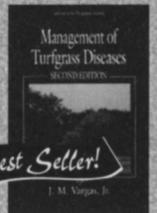
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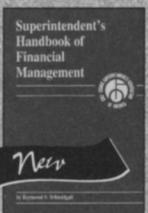
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# SPRING FERTILITY: test first, then apply

*Don't be in a hurry to fertilize in the spring. Get a soil test and wait until the turf is growing.*

By DR. BILL KNOOP/ Technical Editor



**Knoop: don't be too early with warm-season applications.**

**Nitrogen is 'number one' in its ability to produce high growth.**

**J**ust as many managers have been busy over the winter months getting equipment ready for the next season, it's time to make plans for the landscape fertility program.

The goal of any fertility program is to supply the landscape with all the nutrients it needs and can use on a timely basis. Our job is to determine just what nutrients the landscape needs. It makes no sense to apply unneeded or unused nutrients. Many needed nutrients are already available and we may not need to apply them. Major nutrient sources are the

soil, air, water and the decomposition of organic matter. Many landscape plants can grow very well just on these, but when plants like the turfgrasses are planted and grown in highly dense populations, the natural supply of nutrients may not be adequate.

There isn't any totally accurate way to determine just what nutrients or fertilizer a landscape needs, but a soil test will provide a fairly good idea. Now is absolutely the best time to test the soil. It's been a long time since any fertilizer was applied and none of the plants are using any significant amounts. You should get an accurate indication of the soils' nutrient status. With all the concern about the environmental dangers of over fertilization, there is no reason not to soil test.

#### **Know the soil pH**

It's possible that the soil test

results will indicate that it's not necessary to apply some of the nutrients that have been a part of the fertility program in the past. Another valuable part of soil testing is that of determining soil pH. Remember, the soil probably contains nearly all the nutrients the landscape needs but these nutrients could be tied up chemically with other elements. Research has shown that when the soil has a pH of around 6.5, most plant nutrients are in an available form. Here again it makes sense to take advantage of these naturally occurring nutrients by simply following any pH adjustment recommendations detailed on the soil test report.

Even though the soil test report indicates which nutrients the landscape needs and what fertilizer to use and maybe fertilizer rates, and application timing, there are still several fertility management decisions to make.

Just about every landscape will need some nitrogen. Nitrogen is "number one" in its ability to produce high growth rates. Research has proven that fast growth rates aren't necessarily desirable. This means nitrogen should only be applied in modest amounts. Plants prefer nitrogen that is in its nitrate form. Nitrate nitrogen can get into the plant and be used by the plant quicker than any other form of nitrogen. All the other forms of nitrogen must



go through changes to the nitrate form in the soil before they can get into the plant. Many of these changes depend on soil organisms such as bacteria. Soil organisms are not too active in cold, wet soils. Under these environmental conditions only nitrate nitrogen may stand a chance of being used.

The value of using a slow-release nitrogen source for most landscapes has been well documented. Just realize that the slow-release nitrogens do not all become available the same way. The application of one of them during environmental extremes may be a problem.

#### When growth begins

The first application of fertilizer in the spring, north or

south, at least for turf, should be when growth begins. Many feel this should take place after two or three mowings, not on the first, sunny spring day. Note the optimum temperature range for both root and top growth of the cool-season and warm-season turfgrasses. Only when the whole plant is actively growing will it take up the highest percent of fertilizer nutrients. It doesn't make a lot of sense to apply a fertilizer during unfavorable environmental conditions. Remember we can fertilize cool-season turfgrasses in the fall because the soil temperatures are still favorable for root activity.

A common mistake is to fertilize warm-season turfgrasses too early in the

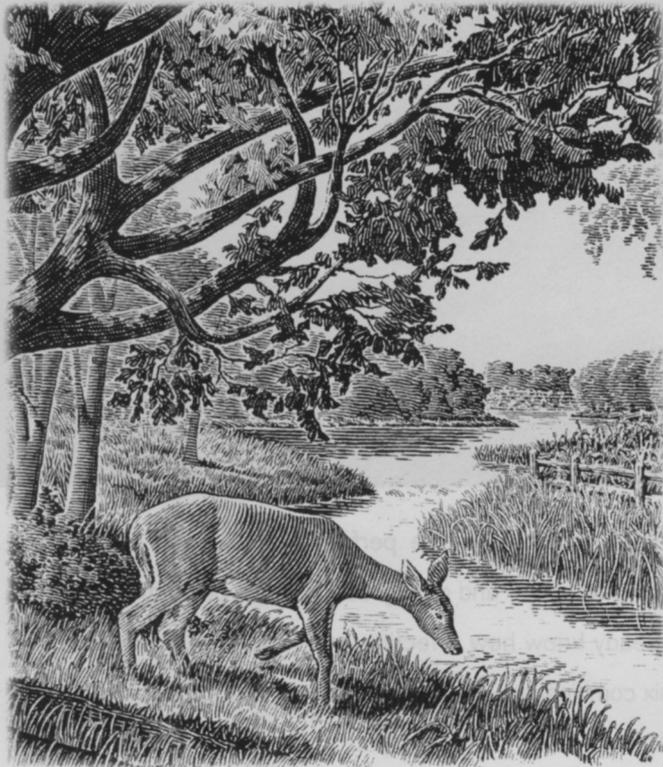
spring. Many times green-up occurs but the plant still may not be warm enough to take advantage of any fertilizer. People not totally familiar with the normal growth cycle for warm-season turfgrass complain about their turf not being responsive to early spring fertilizer applications. Note the optimum growing temperatures. Many times the plant is simply not warm enough to begin active growth even though it may have greened up.

Lawn service companies usually do not have the chance to apply fertilizer to their lawns at the absolutely best time. Chances are that because of work load some lawns will be fertilized before the best time arrives. Think about using a lit-

tle nitrate nitrogen in those first days of the round. It should provide some response while the slow-release material is waiting to kick in.

As for the trees and the other woody plants, they usually get enough nutrients from the turf fertilizer. If there is a need for even more fertilizer for the woody plants, applications are made during late winter and early spring, long before the turfgrasses need any.

Don't be in a hurry to fertilize in the spring. Get a soil test and wait until the turf is actively growing. **LM**



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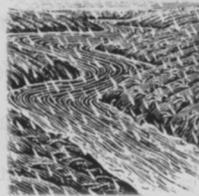
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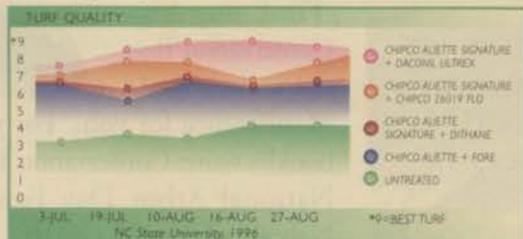
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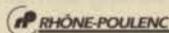
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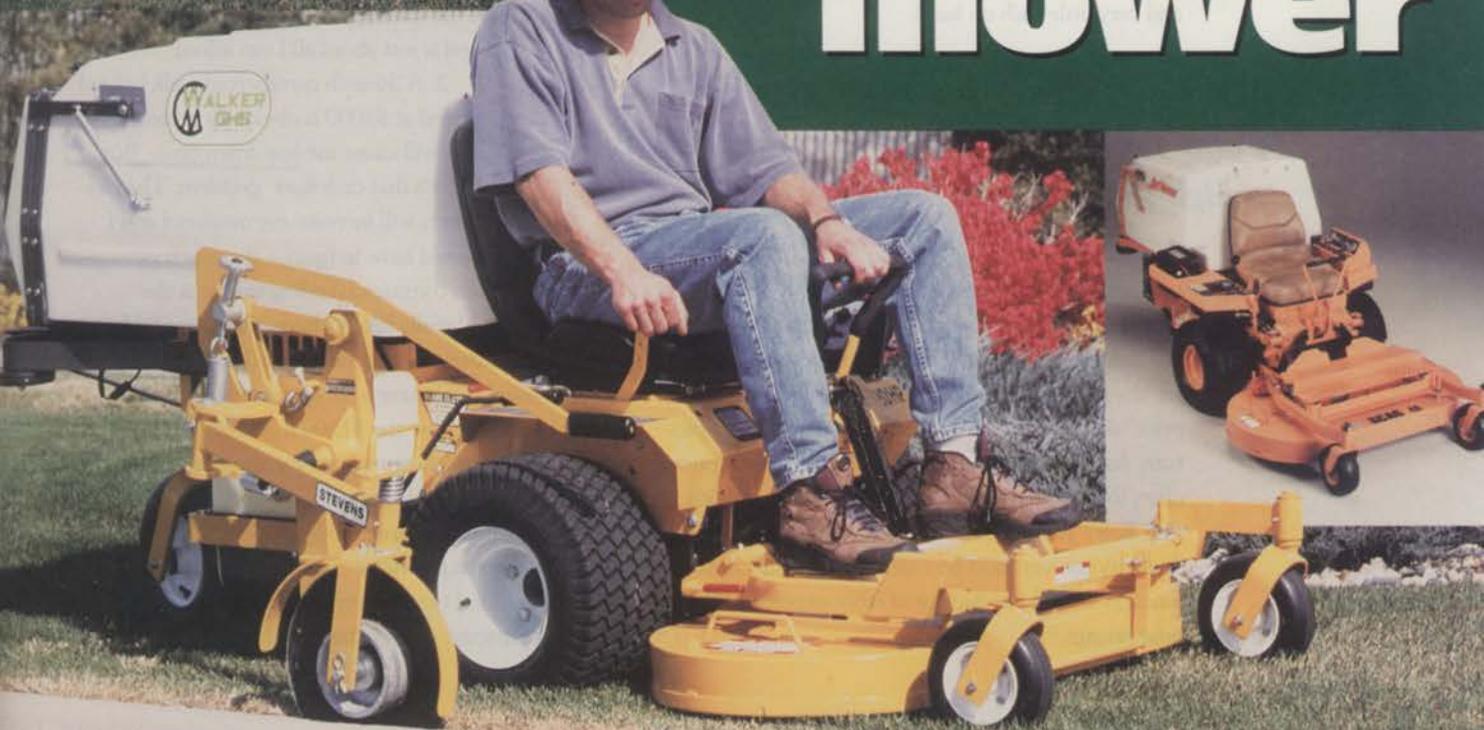
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**Read this  
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# Read this before buying that mower

*A quality, high-production mower is sometimes the reason—the only reason—the professional contractor can turn a profit in the cut-throat mowing industry. Here's why.*

by J. PAUL LAMARCH

I can't raise my prices! That's the number one complaint from mowing contractors across the country. Getting a profit is almost impossible. Employees are working to their limit and overhead is about as "lean and mean" as it can get.

Contractors that are managing to get a profit attribute the profit to using the right mower. When the time comes to purchase a new mower for contractors who haven't yet made the quantum leap to high productivity mowers, the equipment dealer is approached with a little dread and much apprehension and very little cash on hand.

*Without profit, it's almost impossible to make plans for that elusive tomorrow: the day I buy a high-productivity mower.*

#### **Lowest price not everything**

No matter how much we are told that, "this mower will last longer, go faster, cut better and save money," we always have a problem with the price. But "lowest price" does not take everything into the financial picture. As a matter of fact, our fixation on lowest price is often the cause of poor profit picture and troubling cash flow. Remember, the expense of that high productivity mower must be examined carefully in conjunction with the reduction of labor expense and down time savings.

The past five years have been 'sink or swim' for contractors.

There are just too many contractors out there. As in many other sectors, there is just too much supply and not enough demand. Asking higher prices is difficult; profits are not materializing and cash flow is eroding.

Let's look at mowers from a different angle; the productivity factor. Let me share with you a process that I use to determine which mower is the best dollar value - not just a lower price.

#### **The scenario**

I need a new mower and I am looking at three different mowers that I think will do the job for me. As an example, I have 1000 acres of grass to cut each year, 33 acres per week for 30 weeks. The mower I now use operates for four days per week and cuts eight acres per day. There are no restrictions on the sites such as gates to block accesses and most of the sites are 1/2 acre or more.

I have a choice of three machines:

1. A 36-inch residential riding mower priced at \$1500. This is the same type of mower I am now using and is just about all I can afford.
2. A 36-inch commercial walk behind priced at \$3000 is obviously better built and will cause me less down time. But there's that cash flow problem. The payments will increase my overhead and I would have to finance the purchase.
3. A 48-inch commercial riding tractor is the mower I would really love to have. Of course I'd have to win the lottery for that one, priced at \$9000.

Because I don't have a lot of money to spend I'll most likely purchase the \$1500 machine. But I still want to see how these mowers measure up on dollar value when I use this process.

Table 1 lists the three mowers.

#### **Calculate acres per hour**

I have found that mowers do not operate at 100 percent capacity; usually the capacity is closer to 80

**TABLE 1 MOWER CHOICES USED IN THIS PRICING SCENARIO**

	Residential Riding Mower	Commercial Walk Behind	Commercial Tractor
Cutting width	36 inches	36 inches	48 inches
Price	\$1500	\$3000	\$9000
Cutting speed	4 mph	6 mph	6 mph
Min. per acre	50 min.	34 min.	25 min.

percent. To figure out how many acres I can cut at 80 percent capacity, I use the formula:

**MPH X width of cut ÷ 120 = acres per hour**

Therefore, in the example of the 36-inch riding mower, I multiply the mph (4) x the width of the cut (36-inches) and divide by 120.

**(4x36) ÷ by 120 = 1.20 acres per hour**

Now I divide 60 minutes (one hour) by 1.20 and get 50 minutes. As you can see in Table 1, the \$1500 mower takes 50 minutes to cut an acre versus 25 minutes for the 48-inches mower, even though the 48-inch mower costs six times as much.

I need to know the cost of each mower per hour so that I can help determine which is the best mower for the job. To determine the cost of the mower, you have to know:

- 1) The cost of the mower, including financing costs.
- 2) The lifespan of the mower in years.
- 3) Hours of use per year.

Note in Table 2 how the \$1500 mower only costs

\$1.20 per hour versus the 48-inch mower at \$7.18 per hour. If the purchase decision was to be made strictly on mower cost per hour I can assure you that I would be buying the \$1500 mower.

Note also that in all cases of comparison the equipment cost per hour includes return on investment.

**Equipment cost per hour**

I incorporate "return on investment" in

this formula. This is important so that over the lifespan of the mower not only will I have money from my hourly charge to pay for the mower, but I will also have funds to buy the eventual replace-

ment mower later. By dividing the expected lifespan of the mower by 2, you automatically build in return on investment.

Let's use the \$1500 mower as an example. The dealer told me that if I use this mower for 834 hours to cut 1000 acres each year, he would recommend that I trade it in after two years, and if I take care of it, it might last three years. The mower I have right now is just about exhausted. It has lasted three years.

You can see in Table 2 that the cost per equipment hour for the \$1500 mower is \$1.20. If I use this mower for 834 hours for 3 years at \$1.20 per hour, I will have collected \$3000 (i.e. 834 hours x 3 x \$1.20 = \$3000). That is \$1500 more than I paid for the mower. This extra \$1500, plus the residual value of the mower upon trade-in

time should cover the cost of a similar replacement mower.

**Employee cost per hour**

I pay \$8 per hour for my employees to operate my mowers. I also pay state and federal taxes, so that my payroll burden is 40 percent, or an additional \$3.20 per hour. (\$8.00 per hour x 40 percent payroll tax) My total employee cost per hour is therefore \$11.20.

Down time, or the time spent loading and unloading trucks, travelling to and from the job site and two coffee breaks per day adds up to 20 percent of the work day, or two hours of each 10 hour day. Who pays for this down time?

Of course I can only charge my customers for my employees' productive time (i.e. the time employees spend working on the customer's property).

Therefore, to determine the real cost of my employee, I need to incorporate the down time in the employee hourly rate, so that the customer actually pays for the (unproductive time) down time.

**Employee cost per hour per machine**

To do this, I divide the hourly pay of the employee plus the payroll burden by the percentage of down time less 100%. The formula follows:

**DOWN TIME FORMULA:**

$$\frac{\$8.00 \text{ per hour} + \$3.20 \text{ payroll burden}}{100\% - 20\% \text{ down time}} = \frac{\$11.20}{80\%} = \$14.00$$

In other words, an employee who is paid \$8 per hour actually costs me \$14 per hour.

Now, if you incorporate both employee and mower costs per hour, you will notice a

substantial difference between the three mowers. Table 3 shows hourly costs.

**Better cash flow, lower production**

Even though the \$1500 mower costs less to operate per hour in comparison

**TABLE 2 EQUIPMENT COST FORMULA**

*Dollar cost of equipment divided by lifespan of equipment in years divided by 2, multiplied by hours of use per year. Cost per equipment hour based on 1000 acres per year*

<u>\$1500 mower</u> (3 years ÷ 2) x (834 hours)	<u>\$3000 mower</u> (4 years ÷ 2) x (567 hours)	<u>\$9000 mower</u> (6 years ÷ 2) x (417 hours)
Cost = \$1.20/hour	Cost = \$2.65/hour	Cost = \$7.18/hour

**TABLE 3 HOURLY COST CALCULATIONS**

Mower cost	\$1500	\$3000	\$9000
Employee cost per hour	\$14	\$14	\$14
Cost per mower hour	\$1.20	\$2.65	\$7.18
Total cost per hour	\$15.20	\$16.65	\$21.18

**TABLE 4 TOTAL COST PER ACRE**

	\$1500 mower	\$3000 mower	\$9000 mower
Employee/ equipment cost per hour	\$15.20	\$16.65	\$21.18
Acres per hour	.83	.57	.42
Cost per acre	\$12.62	\$9.49	\$8.90

to the other two mowers, it just takes too long to cut one acre. This will become clear when you look at Table 4. Note that the \$1500 mower takes 50 minutes to cut an acre. To calculate this into hours, you divide 50 minutes by 60 minutes, which equals .83 hours.

Even though the \$1500 mower is so

**TABLE 5 CHARGE TO CUSTOMERS PER ACRE**

Total cost per acre = 100% - (overhead % + desired profit)		
1500 mower	\$3000 mower	\$9000 mower
\$12.62	\$9.49	\$8.90
100% - (40%+10%)	100% - (40%+10%)	100% - (40%+10%)
= \$25.24	= \$18.98	= \$17.80

much easier on my cash flow, this mower is not as productive. I cannot afford a \$14.00 per hour employee on a \$1500 mower for 50 minutes per acre vs. 25 minutes per acre for the 48-inch mower. It seems incredible, but the mower that costs six times more than I can afford to pay is actually more affordable than I first realized.

#### Customer cost

Let's take this argument to its conclusion to see what I would have to charge my customers. In the final analysis, it is the customer who pays! To determine this charge per acre, I need to use my costs per acre, shown in Table 4.

Using the JPL mathematical estimating formula, divide: your company overhead + desired profit into costs per acre

Incredible as it may seem in this case, the \$9000 mower proves to be not only more productive per acre, but does the job twice as fast, allowing for more sales!

On the 1000 acres I cut each year, the \$9000 mower saves me \$7440 (\$25.24 per acre for the \$1500 mower less \$17.80 per acre for the \$9000 mower multiplied

I used a 40 percent overhead for this example. See Table 5. This seems to be the average overhead for maintenance companies across North America.

#### Conclusion

by 1000 acres ). This almost pays for the mower in its first year of savings!

Put your own figures into the above tables, so you can accurately establish what you should

be charging your customers per acre. This is the only way you can find out which mower can do the job for you in a way that makes dollars and sense! **LM**

*J. Paul Lamarche is author of What the Market will 'Bare', a step-by-step estimating/pricing manual. For information, write: JPL, 82705 Metler Rd., RR#3, Wellandport, Ontario Canada, LOR 2J0 or fax: (905) 386-7450.*

*E-mail address is [plamarch@freenet.npiec.on.ca](mailto:plamarch@freenet.npiec.on.ca)*

#### AIR-COOLED, WATER-COOLED ENGINES

New Zero Turn Mowers from Bush Hog deliver top appearance and efficiency.

Choices include mowers with air-cooled, 18-hp Briggs & Stratton engines or 22-hp Kohler Command engines; or water-cooled, 20-hp Kawasaki engines.

Deck sizes are 48- 52- and 61-inches, and are rounded for closer trimming. Decks are made of 10-gauge steel with 7-gauge side skirts.

Comfortable seating—adjustable, high-back cushion seat and large footrest—and easy-to-use



controls prevent operator fatigue.

Six gallon fuel tanks and a forward speed of 8 mph are other features.

For more information, contact Bush Hog at (333) 872-6261 and mention that you saw it in LANDSCAPE MANAGEMENT, or

**Circle No. 282**

#### AIR-COOLED MODEL HAS MANY ATTACHMENTS

Grasshopper's new Model 725K zero-radius outfront mower is the company's largest air-cooled unit. A 25-hp Kohler Command V-Twin



OHV engine provides extra power for all the mower's optional equipment.

The 725K mower is designed to be compatible with all Grasshopper mowing decks, including the Combo Mulching Deck. The Combo Mulching Deck is available for all models of

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\*patent pending

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Grasshopper dual-path, hydrostatic direct drive zero-radius power units.

The Combo Mulching deck comes in five sizes, from 44-inches to 72-inches, and has a "one deck does it all" feature that lets the operator bag, discharge or mulch using the same deck.

The Quik-D-Tatch mounting system lets operator easily switch to one of Grasshopper's year-round attachments. A variety of attachments are available: multi-purpose dozer blades for work in dirt, sand, gravel or snow; rotary brooms for sweeping away dirt, debris or up to eight inches of snow; heavy-duty snowthrowers with 180-degree rotation discharge spout.

For more information, contact Grasshopper at (316) 345-8621 and say you spotted it in LANDSCAPE MANAGEMENT, or

**Circle No. 283**

#### SIMPLICITY AND CONVENIENCE FEATURES

Dixon's ZTR1001 uses the Dixon Z-Drive transaxle for hydrostatic performance at a gear drive price. The Z-Drive is a simple, convenient machine. Hand levers provide the operator with light, natural control and use operator presence switches for safe mower operation.

Other innovative features include a laser-cut steel frame with 'A' frame handles for strength and durability and a single point deck lift for quick mowing height adjustment.

The low-profile design for the power unit on the Dixon ZTR1001 features the 15-hp Kohler Command Pro Series engine. The fuel tank is located away from the engine, which makes for



safe refueling. Three mowing deck options are available (36-, 42- and 50-inches) to allow the ZTR1001 to be customized to the commercial cutter's needs. For more information, contact Dixon at (316) 251-2000 or,

**Circle No. 284**

#### HYDRAULIC LIFT STANDARD HERE

The Gravely Promaster 300 is available with either 18, 20 or 25-hp Kohler Command engines



and comes with either a 50-inch or 60-inch mower deck. Hydraulic lift is standard equipment which allows easy maneuvers over curbs and other obstructions. Placement of the steering yoke and instrument panel permits operator almost unlimited visibility across the mower deck.

The yoke steering on the Promaster 350 delivers a fast zero-turn radius and the out-front cutting produces a smooth cut with excellent trimming capabilities and better operator visibility.

For more information about Gravely Promaster mowers, contact the company at (910) 777-1122, or

**Circle No. 285**

#### HIGH PRODUCTIVITY MOWER

Jacobsen's Turfcut mower comes with powerful, 23- to 45-hp engines, in either gas or diesel.

The Turfcut is an all hydraulic, 2- or 4-wheel



drive machine for smooth operation.

Decks are available as side- or rear-discharge rotary decks, Mulcherizer rotary mulching decks, and Fine Cut Flail decks.

Cutting width options are 72-inch, 60-inch, and mowing speeds reach up to 6 mph for maximum productivity. Snow blower, debris blower and rotary brush are available for year-round performance.

For more information on the Jacobsen line of professional mowers, call the company at (414) 637-6711 and mention LANDSCAPE MANAGEMENT, or

**Circle No. 286**

#### MOWER GETS TO THOSE HARD-TO-REACH SPOTS

The Kubota GF1800 2WD and 4WD front-mount mowers make short work of any grass cutting job. The GF1800's compact design provides

outstanding maneuverability in tight corners where larger front-mount mowers cannot go. It's powered by an 18-hp, 3-cylinder diesel engine, and features a hydrostatic transmission and a single pedal to manipulate both speed and direction.

The 4WD GF1800 features a unique 2-pedal 2WD/4WD change-over process. This foot-control 4WD can be activated whether the mower is stopped or on the go.

For the operator, the GF1800 offers a wide, semi-flat deck with lots of leg room and a large comfortable high seat. All gauges are placed in front of the operator for easy viewing while working.

There's more, including an optional grass



catcher in a choice of hopper or bag types, plus other performance-enhancing operations that make mowing more efficient.

For more information, contact Kubota at (310) 370-3370 or,

**Circle No. 287**

#### MOWER IS QUICK, WITH BAGGING OPTIONS

Scag's new Turf Runner is designed to outperform any mower in its class, says the Mayville, Wisc. company.

The Turf Runner—as its name implies—is quick. It is designed to deliver exceptional bagging performance and single lever change-over to side discharge.

Scag says the mower provides better versatility to the commercial cutter, as it can convert from a rear bagger to a side discharge mower with the flip of a lever.



There's no need to remove the bagging deck to install a costly side discharge deck.

This innovative design (patent pending) allows more cutting time by allowing the operator to respond to changing grass conditions in the field. In addition, the Turf Runner's heavy-duty, 12-inch diameter blower cleanly transfers the grass cuttings from the extra-deep deck to the bagger. It has a large, five gallon gas tank and a 7.5 mph ground speed. For more information, contact Scag Power Equipment at (414) 3870-0100, or

**Circle No. 288**

#### 360 DEGREES OF MANEUVERABILITY

The new Z Master Z222 Hydro Zero Radius Tractor from Toro is a high-performance rider with 360 degrees of maneuverability. The Z Master is equipped with a 22-hp Kohler Command vertical shaft engine that can cover 25 acres a day at speeds up to 8 mph. Industry comparison studies show that the new Z master is 17 percent faster in ground speed than a leading national brand. The patented Recycler cutting technology also increases productivity 38 percent over bagging, says Toro.

The mower's hydrostatic drive system provides maximum power, precise speed control and smooth handling at all times. This is accompanied by a hydrostatic oil cooling system which features

Ross wheel motors and shuttle valves that channel hot oil directly to its oversized oil cooler.

The sleek, floating deck design provides operators with the flexibility to either mulch, bag or discharge clippings in order to leave the lawn looking perfectly manicured. The Z222 is available with a 52-inch Recycler deck; 52-inch or 60-inch side-discharge deck, along with baggers that fit both sizes.

Contact Toro at (612) 888-8801 and tell them you saw it in LANDSCAPE MANAGEMENT, or **Circle No. 289**

#### EDGER ATTACHMENT SPECIAL TO WALKER MOWER

The Stevens Coulter Blade Edger attachment has been developed as an attachment for the Walker Mower. The self-tracking coulter disc on a swing arm smoothly and quickly trims grass along the concrete edge of sidewalks, curbs and walking paths. There are big labor savings, less mess and no flying debris in comparison to the rotary blade type edger.

Simple mechanical blade engagement (eliminating expensive hydraulics), a quick-mount bracket on the tractor, self-sharpening blade, single hitch-pin height adjustment are pluses.

For more information, contact Walker Manufacturing Company at (970) 221-5614, or **Circle No. 290**



#### 18 COMMERCIAL MOWERS AVAILABLE

John Deere has a wide variety of mowers for the commercial user, from the 13-hp GS30, to the 28-hp F1145 diesel. Mower decks range in size from 336- to 54-inches. The seven models in the GS Series are backed by a 3-year, limited warranty. Contact Deere at (919) 832-7421, and mention LANDSCAPE MANAGEMENT, or

**Circle No. 291 LM**

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# WIN \$500!

Announcing: the second annual LANDSCAPE MANAGEMENT "Emerald Awards" LANDSCAPE MANAGEMENT magazine is offering a \$500 first prize to the winner of a random drawing to be held on July 1, 1997. Second prize is \$300 and third prize \$200 in cash. To be eligible for the drawing, simply fill out the questionnaire at right and return it to LM's editorial offices.



Answers to the questions will determine our "1997 Emerald Awards" winners, to be revealed—along with the contest winner—in our August issue.

**CONTEST REQUIREMENTS:** Contestants must be owners or employees of landscape maintenance companies or lawn care companies; or maintenance employees of a golf course or country club, including superintendents and assistant superintendents; or an athletic field manager or member of an athletic field maintenance crew; or manager or member of a facility landscape management crew. Employees of Advanstar Communications and their families are not eligible.

All questions on this entry form must be completed, and all blanks filled. One entry per person. No more than five entries from any one employer will be allowed. Entry forms will appear in the February-June, 1997 issues of LANDSCAPE MANAGEMENT.

Completed questionnaires should be mailed to: Emerald Awards, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. They must be received by noon, July 1, 1997.

A random drawing of all eligible entry forms will be held the afternoon of July 1, 1997. Winners will be notified within 24 hours.

## OFFICIAL ENTRY FORM

### QUESTION:

WHAT IS YOUR FAVORITE  
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CHECK HERE  
IF YOU DO  
NOT USE

riding mower?

walk-behind mower?

turf fertilizer?

pre-emergence herbicide?

post-emergence herbicide?

turf insecticide?

turf fungicide?

plant growth regulator?

compact tractor?

turf aerator?

pick-up truck?

leaf blower?

line trimmer?

chain saw?

Kentucky bluegrass?

perennial ryegrass?

turf-type tall fescue?

turfgrass mix or blend?

biological control product?

NAME:

EMPLOYER:

CITY/STATE:

PHONE NUMBER:

(AC )

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**Now Daconil Ultrex® Fungicide  
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Week 1



Week 2



Week 3



Week 7



Week 8



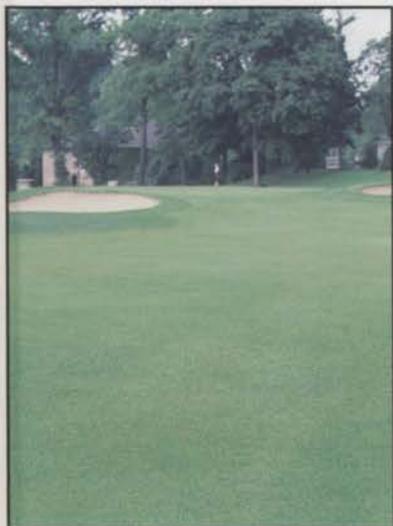
Week 9

## Now You Can Use Daconil U For A Great Looking Course Week A

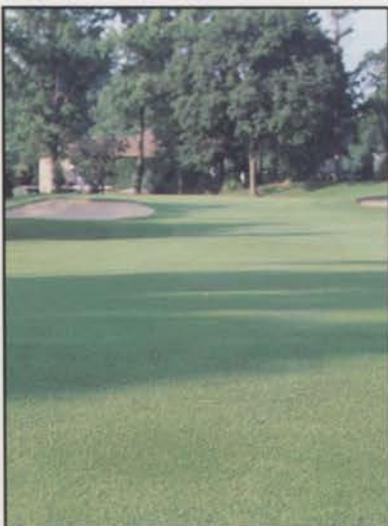
What could make spray-dry Daconil Ultrex® fungicide even better? How about a new, enhanced Super Weather Stik™ formulation? Testing shows you can get exceptional results with this new formulation at application rates 20% lower than before. That means you can now tighten your schedule for even better disease control without a significant increase in overall cost.

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*Week 4*



*Week 5*



*Week 6*



*Week 10*



*Week 11*



*Week 12*

# Ultrax Every Time You Spray After Week After Week After Week.

develop a whole new spraying program using it at regular seven day intervals. As the photos above show, this program has been getting great results at courses like Shaker Heights Country Club, near Cleveland, Ohio, and it can do the same for you, giving you better disease resistance management and a healthier, greener course than you've ever had before, while still supporting

your cost containment efforts. And to prove that to you, we've created the Daconil Ultrax Challenge — with enough free product for you to test this program on one green or fairway all season long. Ask your distributor for all the details. It could change your whole approach to disease control.

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Always follow label directions carefully when using turf and ornamentals plant protection products. ® Registered trademark of ISK Biosciences Corporation. ™ Trademark of ISK Biosciences Corporation. \*For best results, we recommend using 20% lower application rates on a 7-10 day schedule. Section 12(a)(2)(G) of FIFRA provides that it is unlawful for any person "to use any registered pesticide in a manner inconsistent with its labeling"; quoted language is defined in section 2(ee) of FIFRA and expressly excludes the act of "applying a pesticide at any dosage, concentration, or frequency less than that specified on the labeling unless the labeling specifically prohibits deviation from the specified dosage, concentration, or frequency." Thus, in the absence of specific label prohibitions, it is not unlawful under section 12(a)(2)(G) to use a registered pesticide at a dosage, concentration, or frequency less than that specified on the labeling of the pesticide.

**T**he United States Golf Association Green Section's *Specifications for a Method of Putting Green Construction* was introduced in 1960, and through several revisions has remained the most widely-researched and successful method in the world.

When built and maintained properly, USGA greens have provided excellent results over many years for golf courses in most regions of the United States and the world. Nevertheless, through the years, a number of problems and questions have arisen, and since 1990, the USGA has taken several important steps to address these concerns.

► The specifications received a thorough review and updating by a committee of prominent scientists, and the latest revision was published in 1993.

► Standardized laboratory procedures were developed by a committee of scientist and laboratory practitioners, and in 1995, the procedures were approved by the

American Society of Testing and Materials, the largest standards organization in the U.S.

► A laboratory accreditation program was established by the Green Section in 1996, through the American Association for Laboratory Accreditation (ASLA), to help ensure the best possible results for golf courses that test materials for green construction. Three laboratories have become accredited thus far, and several more are completing necessary steps.

► In 1996, the USGA's Turfgrass and Environmental Research Committee initiated research projects at 12 universities to increase our scientific understanding of green construction methods and materials. Some of these studies will cover a period of five to 10 years. More than \$850,000 has been allocated, and additional studies will be funded as other questions arise.

► The USGA established a Construction Education Program in 1996 to help educate and pro-

## Better greens a worthy USGA goal



*James T. Snow*

JAMES T. SNOW  
Guest columnist

GOLF

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An easy way to track equipment

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Seattle course faces big cleanup

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Good tees need feeding, aerating

vide the latest information to golf course architects, builders, developers, superintendents and others about green construction and other golf course construction and renovation topics.

The Green Section is working with the Golf Course Superintendents Association of America (GCSAA) and the National Turfgrass Evaluation Program (NTEP) to test new bentgrass and bermudagrass varieties on golf course practice greens built to USGA recommendations. Construction will be financed in part by the USGA, and it is hoped that construction can begin during the spring and summer of 1997. We are in the process of identifying fifteen courses located in various climatic zones throughout the country that will participate in these variety trials, which are expected to last for five years. Green construction is one of the most visible aspects of golf course management, to superintendents and course officials alike. Greens are one of the most costly features on a golf course to build and maintain, and the USGA is committed to providing the best possible information on green construction and management to everyone involved. **LM**

*Guest columnist James T. Snow is national director of the USGA Green Section, Far Hills, N.J.*

# Keep these guys off your course.



MERIT® Insecticide is remarkably effective. Both on the course. And off. An application of MERIT on your course in the spring will provide excellent residual grub control through the fall. Under

normal conditions, MERIT can give you residual soil insect control up to four months or longer in turf. In short, it controls grubs and keeps controlling them. If that was all it did, that might be enough to make it your insecticide of choice.

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# Keep these guys off your case.



But when you add in its low application rate of only 0.3 pound of active ingredient per acre, you have a pretty remarkable product that presents less exposure than current insecticides to birds and fish. A product so good, even the

Greens Committee will love it. To find out more, contact Bayer Corporation, Specialty Products, Box 4913, Kansas City, MO 64120. (800) 842-8020.



# Bermuda breakthrough!

*Morris Brown found Champion 'growing where it shouldn't be.' Test results show it to be a valid candidate for use on southern putting greens.*

by BILL KNOOP, PH.D / Technical Editor

Once in a while something comes along in our business that's so far ahead of what we have had that it's hard to believe.

It may be a new management technique, a new piece of equipment or even a chemical that does a much better job of controlling a pest without hurting the environment.

The latest big breakthrough is bermudagrass. Those of you who have been around this business a few years may know the names of some turfgrasses that set new standards for the respective variety. Some examples from the past are Merion Kentucky bluegrass, Manhattan perennial ryegrass and Penncross creeping bentgrass. These three represent significant improvements over the others of the same variety that we were using.

For years there has been a certain amount of

pressure on golf courses in the south to provide bentgrass putting greens. Since all the bentgrasses are cool-season turfgrasses, growing them successfully in the south has been a challenge that is second to none. Bentgrass greens have been perceived by many golfers to have a better quality putting surface than bermuda, but some suggest that the movement in the south to bentgrass putting greens may be more of a fad. In other words, if "Club A" has bentgrass greens, then "Club B" must also have bentgrass greens. For whatever reason, many southern golf courses have bentgrass greens, and there aren't too many people that won't admit that a good bentgrass green probably may putt better than green planted with either Tifdwarf or Tifgreen.

## **Closely resembles bentgrass**

Champion is the new dwarf bermudagrass that can form a putting surface denser than most of the bentgrasses. Those who have putted on a Champion green concede that they wouldn't have known it was a bermuda green if they hadn't been told.

The most interesting fact about Champion is that it was not a product of some very large university or company breeding program. Like some of our other turfgrass varieties, Champion was simply "found,"

by Morris Brown in 1987.

Brown, of Coastal Turf Inc., Bay City, Texas, noticed a very small, different looking, bermudagrass growing in a Tifdwarf green that was established way back in the 1960s. Morris has spent a significant part of what spare time he has had looking for grasses growing where they shouldn't be, or for grasses that just look or act differently than they should. Champion was one

**The Champion bermuda has fooled golfers who thought they were putting on bentgrass. Stimpmeter reading goes beyond 10.**





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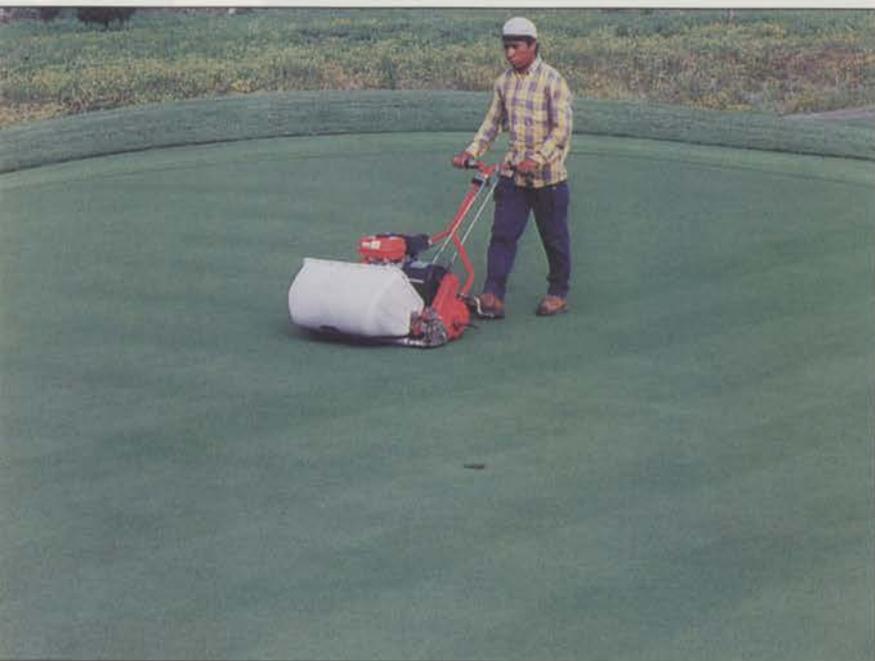
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of these and it seems to be a naturally-occurring mutant of Tifdwarf.

Morris knew that just because this new bermudagrass looked very promising as a putting green grass, there were many tests that needed to be run to make sure it was as good as he thought. He turned this new bermuda over to Dr. Jim Beard of the International Sports Turf Institute. Beard had previously led the turfgrass research program at Michigan State and Texas A&M universities.

#### **Gene print taken**

The first step in analyzing Champion's potential was to take its genetic "fingerprint." This revealed that while Champion is distinctly different than Tifdwarf, Tifgreen or Tifway, it does share some genetic identity with Tifdwarf. Since its closest relative is Tifdwarf—and Tifdwarf is the choice for many bermuda putting greens, Beard conducted a series of comparison tests between Champion and Tifdwarf.

Most rounds of golf are played during the summer months. In the south, when play is at its peak, bentgrass greens can be under their greatest stress. This has caused some serious problems. Summer care of bentgrass, according to many superintendents, has been significantly higher in both materials and labor costs.

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All the tests that Dr. Beard conducted were replicated and analyzed statistically. The results were very interesting:

1. Champion had nearly twice the shoot density of Tifdwarf, when mowed at  $\frac{1}{2}$  inch.
2. Champion produced more than twice as many stolons as Tifdwarf at  $\frac{1}{2}$  inch. This may help to explain Champion's higher density.
3. While Champion has a high lateral growth rate, it has less than half the vertical leaf growth rate as Tifdwarf. This should mean that the putting quality of a green should remain high longer and after mowing.
4. Champion's leaf blade is about 14 percent finer than Tifdwarf.
5. No seed heads have ever been observed on Champion.
6. In a wear test using a machine that traveled over the green 1900 times, Champion had about a third of the wear damage as Tifdwarf, cut at  $\frac{1}{2}$  inch.
7. Champion recovered 3.4 times faster from wear as Tifdwarf.
8. Champion proved to be able to withstand lower temperatures and have better recovery from the cold than Tifdwarf.

*B.K.*

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# Pelican Hill, nature's partner

*Don Hoos explains how these coastal California courses were designed and built with the wildlife in mind. They're irrigated with reclaimed water, and much of the acreage wasn't touched.*

by Steve and Suz Trusty

**"E**nvironmental issues will continue to play a bigger and bigger role in what golf course superintendents do and how we approach things," says Don Hoos, director of agronomy for Pelican Hill Golf Club near Newport Coast, Calif.

"The 400 acres of Pelican Hill were part of a huge area of ranch land which The Irvine Company owns and has developed in stages. It took them seven or eight years to work through the planning and approval processes to get the okay to begin construction. Environmental issues have been a top priority from the planning stages through course construction and in our maintenance practices."

Pelican Hill is an environmentally sensitive area. A popular surfing beach is on the stretch of Pacific Ocean adjacent to the complex. Crystal Cove State Park is nearby.

Two challenging, beautiful and decidedly differ-

ent golf courses lie within Pelican Hill—the traditional tree-lined Ocean Course and the Links Course, more reflective of the native California landscape.

Hoos notes that only 200 of the 400 acres of Pelican Hill are in turf. And, while provisions of the original agreement called for 13.7 acres of California coastal scrub as habitat for the gnat catcher, an endangered bird species, the native plant material was integrated into 40 acres of the Links Course design. Also, many natural areas were left undisturbed during construction.

#### **State-of-the-art irrigation**

Both courses irrigate with reclaimed water from the local Irvine Ranch Water District. Each course has a separate Rain Bird Maxi computer-controlled irrigation system, and its own weather station to supply the evapotranspiration data on which irrigation is based. Turf and native areas are irrigated separately. Because the native soil is heavy clay, water is applied in small amounts at a time, with the cycle repeated as necessary for optimum moisture levels.

Hoos says, "The Irvine Company set up a monitoring program for storm water runoff which measures for pesticides, nitrates, and any other kind of pollution that could possibly run off from a golf course. The program is entering its fifth year and, to date, there's been no measurable discharge from the courses."

### One step ahead of regs

Pelican Hill complies with, and strives to stay a bit ahead of, the stringent California pesticide programs and regulations.

"The state agencies have done a very good job overall of implementing these regulatory programs. They took the educational approach, setting up the parameters, taking steps to insure that those affected understood the programs and regulations, and giving us adequate time to comply. I think it's been a much more effective way to bring people into compliance and get them focused on environmentally compatible practices than just establishing the regulations followed immediately with non-compliance checks and fines."

### A watchful eye

Hoos points out that many issues of community concern revolve around initial development and construction of golf courses. Each community wants to insure the course will not adversely affect the environment, or the residents' quality of life.

Once the course is completed, members of the community immediately surrounding it keep a watchful eye on changes in course design, removal or replacement of trees, shrubs and other landscaping features, irrigation patterns and applications of fertilizers, fungicides and other pest control products. Though golfers' concerns center more on the playability of the course, environmental factors are an issue.

"When people see spray tanks out on the course and operators in protective clothing, they wonder if they should be protected too, and if what's taking place is dangerous. Open communication outreach programs can help address these concerns."

Looking to the future, Hoos says, "I think the turfgrass breeding based on genetics is going to be exciting as more information becomes available about DNA and the location of the different genes that control different parts of the plant. I'm sure the major emphasis will be on food and fiber. But I hope this industry will also benefit and we can see some improvements in



Hoos: open communications with the public, improved interview process and a more thorough background check procedure for perspective employees have lowered turnover.

turfgrasses for disease resistance, insect resistance, cold hardiness and more. That will make our jobs easier and we'll have less reliance on pesticides."

### Thoughtful hiring

On-course environmental programs need the full support of crew members. Yet, the future is sure to hold the same employee challenges which are now a constant on golf courses across the United States. Pelican Hill has a current employee turnover rate of from five to 10 percent. Hoos notes that an upgraded interview process and a more thorough background check procedure for perspective employees has helped bring them to that rate.

"We also participate in a pilot program with the INS (Immigration and Naturalization Service) to verify the validity of applicants' green cards, to make sure they are authorized to work in the U.S. We make people aware of that when they come in to interview for the hiring process. It does discourage illegal aliens from applying for jobs. This saves us time upfront and problems later on.

"By concentrating on hiring good people, we've also been able to step up our training programs because crew members

are more receptive and respond better to the training. Greater competence levels in our personnel has helped us to adhere to maintenance procedures and policies and to reduce our overall maintenance costs."

Hoos commends efforts to promote the professional image of the superintendent. He gives much credit to the Golf Course Superintendents Association of America (GCSAA).

This past November Pelican Hill was the site of the 10th annual John Deere Team Championship Golf Tournament. The event brings together teams comprised of a course superintendent, pro, club manager and club president. A John Deere representative joins the team for the finals.

Adds Hoos, "Superintendents today are more focused on the big picture of how our courses are perceived by golfers, the community and the public. We'll need to incorporate all the education, training, resources and technology available to keep our courses and our role as superintendents in a positive position on environmental issues in the future." □

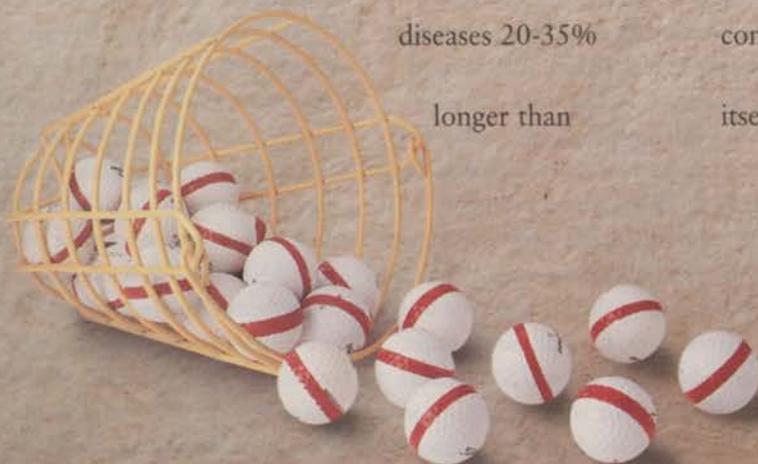
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Circle No. 133 on Reader Inquiry Card

# This "Big Board" tracks equipment



Superintendent Steve Geller, left, and mechanic Joe Pope in Suffolk, Va., developed this big board to track maintenance on all the mechanical equipment used at the Cedar Point Club. They say employees like it.

The second, one-inch wide column behind each equipment listing, for instance, contains green or red notations, green indicating that that particular piece of equipment is operable, red meaning that it's being repaired or serviced.

Subsequent columns on the big board show, at a glance, the number of hours of operation on each piece of equipment, when its next PM (preventive maintenance) is due—either in hours or by calendar date—and when the last PM was done.

"It was an inexpensive system to put together," says Pope, formerly an airplane mechanic in the U.S. Navy. "I think you can buy about everything you need at an office supply store."

Pope says workers at the golf club seem to appreciate being able to easily tell the status of the equipment at the course.

"The board is right behind my desk and next to the key locker where we keep the equipment keys," says Pope. "Whoever Steve (Geller) assigns to the equipment can just glance up and see right away whether the equipment is up or down, or whether it's getting close to a PM (preventive maintenance). It's worked real well for us."

Beyond the big board, Pope says that he's developed, and uses, a form that details the on-going maintenance and repair history for each piece of equipment.

"At the end of the year I total each piece of equipment up and I give Steve a report on what each piece of equipment costs to maintain for the year, including parts," explains Pope. □

*A veteran golf course mechanic says you don't have to be too fancy to track the condition and costs of your maintenance equipment.*

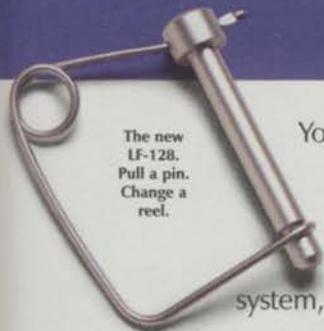
**G**olf course superintendent Steve Geller and mechanic Joe Pope developed an easy and efficient way to track the condition of the equipment at Cedar Point Club, Suffolk, Va.

"It's real simple," explains Geller. "We have a white board that's 6 feet by 4 feet, and we can write on it with erasable markers. We bought some ribbon-type marking tape and made enough columns on the board to list our 66 pieces of equipment."

Each piece of equipment is given a number on the board. For instance, in the number one column is a greens mower. Number 19 is a Ford tractor, and so forth. The numbers themselves, and the order they're displayed, is not particularly significant. What is important is the data following each listing.



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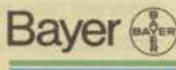
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Circle No. 104 on Reader Inquiry Card

# Course mops up after winter floods

*Superintendent Rick McDow estimates a 350-hour clean up and repair job needed to get Ballinger back in shape.*

by LESLEE JAQUETTE

If the Ballinger Park Municipal Golf Course were a bathtub, it would have the world's biggest ring, from flood waters that covered the course in December.

Included among the flotsam and jetsam floating along what

used to be fairways are pop cans, a soccer ball, railroad ties, cedar logs, four rowing skiffs that were lifted from a shoreline, and a 30-foot boat dock.

The damage done to this nine-hole public golf course located 13 miles north of Seattle on Lake Ballinger, is extensive. Superintendent Rick

McDow estimates more than two-thirds of the 35-acre course was covered for several days in late December/early January, in what looks like a tidal slosh.

McDow and assistant superintendent Andrew Watters estimate the flood had left twice as much damage than any they have seen in 12 years. Beyond dozens of logs, railroad ties, docks and assorted junk, the flood took out five of six bridges on the course.

Situated in park lands adjacent to the lake, the course sits at an elevation of 280 feet. With two recent snowstorms and record-breaking rainfall, the lake rose more than six feet to reach within a few feet of the pro shop.

During the rainy months, guests often play while wearing rubber boots, and only the two holes closest to the lake become saturated. This year, every hole on the course had some standing water around it.

## Monumental clean up

The damage is great and the clean up is going to take weeks. A lower budget doesn't help either.

For starters, McDow estimates the clean up will take a minimum of 300 man hours with an additional 50 spent to replace the five lost bridges. But is there more rain to come? McDow thinks so.

**More than 100 cedars and fir trees will have to be removed from Ballinger Park.**

Seattle's rainfall passed the 52-inch mark in 1996, which is 15 inches above average for a year, and McDow sees no reason to believe the monsoons will abate just as winter begins.

The prognosis for the repair time—as of mid-January—was that the course would have to remain closed till March.

McDow recalls that during the course's best year—1987, a drought year—61,000 rounds were played. In comparison, wet 1996 saw only 35,000 rounds. Given the way 1997 has roared in, McDow anticipates an all-time low for rounds played.

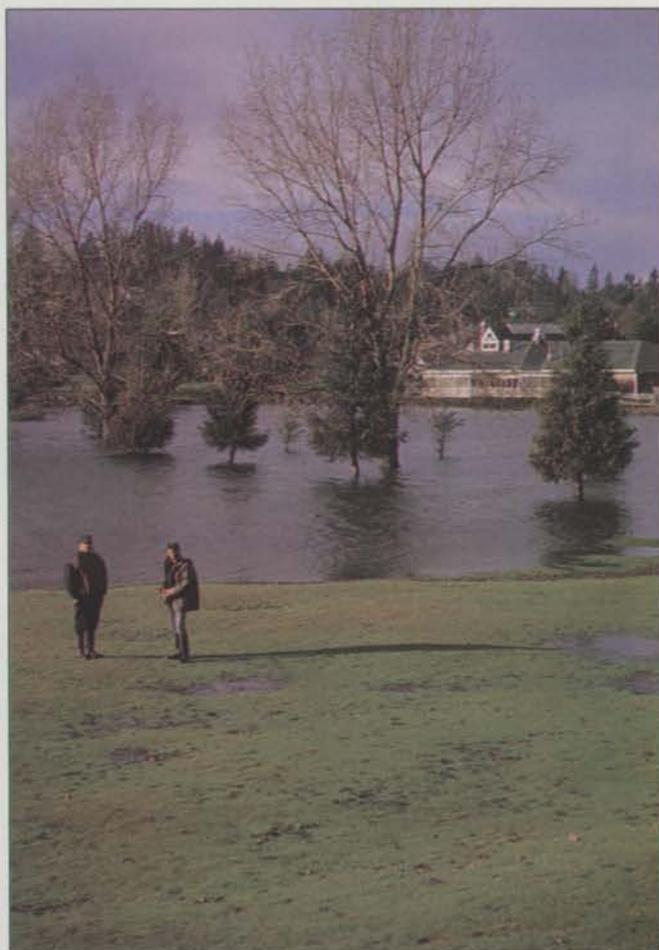
## Lost revenue, lost trees

Beyond increased labor needs and lost revenue, at least 100 cedar and fir trees will probably die and have to be removed as a result of the flood.

McDow explains that while the cedars can withstand "wet feet" every now and then, they can't endure it for days at a time, and the firs can't tolerate flooding at all. Some of these trees are 15 years old and worth thousands.

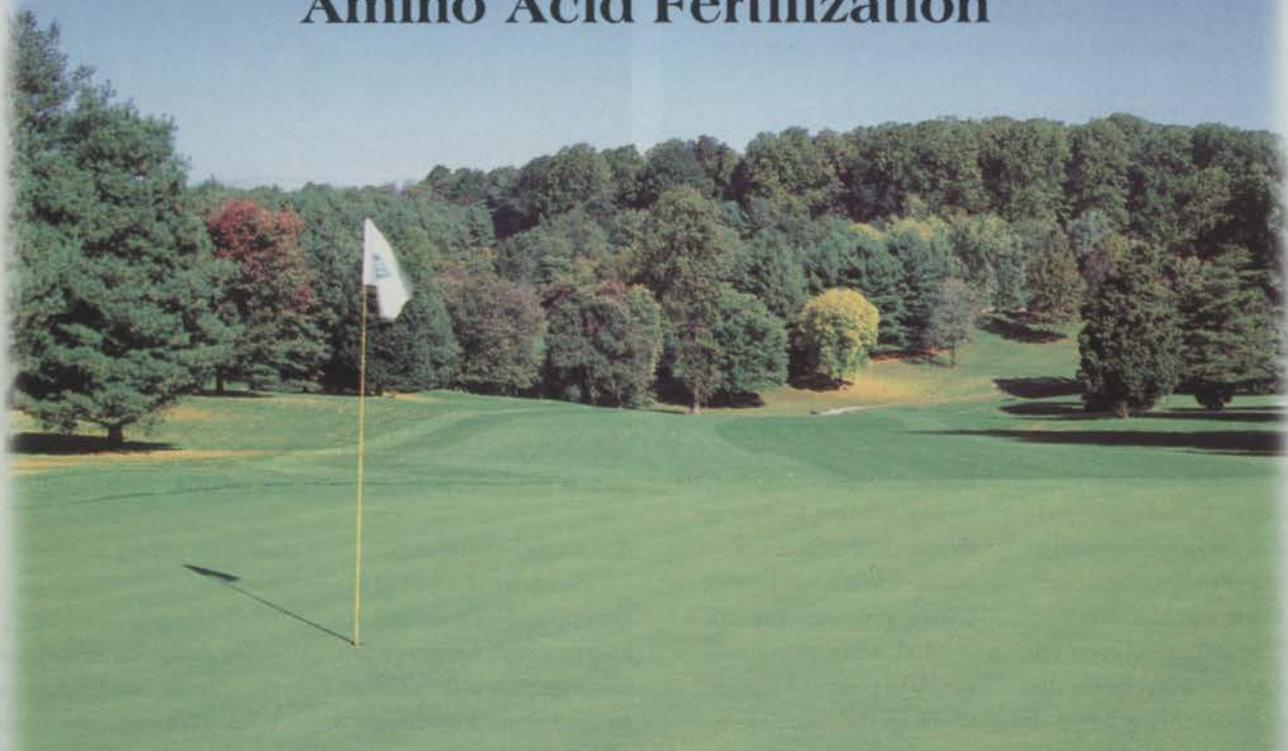
Shaking his head as if he's losing good friends, McDow says the cost is inestimable. Ironically, he notes that the 50 or so enormous, large leaf poplars on the course will survive just fine.

"Poplars are the dirtiest, filthiest tree you could have on a course, but, fortunately, nothing can kill them."



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## Clean-up strategy for wet, wet turf

- ▶ Focus the budget dollars on survival. Get the course clean and safe.
- ▶ Expect lots of hand work, due to high saturation.
- ▶ Plan to bring in heavy equipment in April, June at the latest.
- ▶ Logs, timbers, docks will have to be sawed into manageable pieces and carried to trucks.
- ▶ Ryegrass will have to be brought in well in excess of the usual 500 pounds used in a year.
- ▶ Fungicide applications on greens and tee boxes will have to go beyond the usual two per year applications.

L.J.



Andrew Watters, left, and Rick McDow found some dry ground to walk as they surveyed Ballinger's flood damage.

### Pest damage mounts

Crows, Canada geese and mallard ducks are expected to do more damage. Crows are the worst, says McDow.

"The critters will chew up this turf like crazy. Going after insect larvae, they will peck the

course to death."

Mallards dive to chew up thousands of tufts of turf, pieces of which will be seen floating in the receding lake.

Mud, water, pine needles, a variety of plant and human crud edge the course like a

dozen ugly bathtub rings.

"Floods are all a part of the game," says McDow. "Still, it's hard to accept, because, taken in conjunction with our ailing equipment and lost revenue, it

makes everything snowball downhill." □

—The author is a writer/photographer based in Edmonds, Wash. Photos by Leslee Jaquette

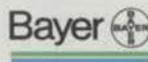
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# Tee recipe:

## FEED WELL, AERATE OFTEN

*It also helps if the golfers cooperate. These two superintendents know to keep tees healthy and neat.*

**S**pikes marks and ball divots damage greens.

Tees, on the other hand, get spiked, but they also get thumped by golfers' clubs, and, particularly on Par 3s, shredded by irons.

To keep tees in shape, you

need help from golfers in addition to smart agronomics.

Jerry Coldiron's golfers are good about using the divot mix stationed on all par 3 tees and shorter par 4s, but he doesn't hesitate to jump in with crew support.

### Aerify four times/year

"Everyone concentrates on green aeration, but it's very easy to let tee aeration slip away," says Corey Eastwood, superintendent at Stockdale Country Club, Bakersfield, Calif.

"Tees should be aerated four times a year if the seasons allow it," says Eastwood. "Follow with your green mix topdressing to improve percolation and compaction."

"Build tees as large as possible," advises Eastwood. "Make tee enlargement a priority unless turf areas are restricted by government agencies.

"Mow tees in a square or rectangular pattern. You'd be surprised how many square feet this will add to playable tee area.

"If tees must be round or oval, only do the cleanup lap once per week. This will eliminate the mower wear area on both ends of the tees.

"Have the outside edges of the tees directed down the line of flight. This eliminates complaints that, 'the tee markers are never straight.'"

Other Eastwood tee tips:

- ▶ Fertilize every three to four weeks, along with the greens.
- ▶ Use a good, slow-release fertilizer. Don't try to save a couple dollars per bag.
- ▶ Fill or seed divots weekly.
- ▶ In most cases, strip and level tees every five years. This will keep up with settling on the edges and a build-up in the middle due to topdressing.

"We use the sand buckets with ryegrass seed mixed in.

On downtimes, we send a crew around with the sand mix," says Coldiron, who also follows an aggressive fertility program at Boone Links/Lassing Pointe in Florence, Ky., as does Corey Eastwood of Stockdale Country Club, Bakersfield, Calif. (see sidebar).

"We have the sand-based, bentgrass tees on Lassing Pointe and the push-up clay tees at Boone Links, which are bluegrass/ryegrass," explains Coldiron. "They're all beginning to transform to the ryegrass, because we've gone to an aggressive topdressing program. We use a seed blend that contains a lighter colored rye, that tends to match in with the bentgrass. We do get some growth variations with the ryegrass, but we're mowing tees

often enough that it's really not a problem.

"But the reality of it is, on a par 3s, with the amount of play and divots that we have, there's just no way to keep the bent aggressive, even though we went with Penncross."

#### Move the markers

"We have a system in which rangers and employees in the Turf Center move the tee markers many times each day," says Coldiron. "Between the clubhouse staff and our staff, we keep those things hopping, especially on busy days. We can run 300-400 golfers through. If those markers aren't moved, you can tell right off the bat." **LM**

**Golfers at Boone Links/Lassing Pointe are good about using divot repair sand.**



### OPEI spins EXPO web

The Outdoor Power Equipment Institute now reports the latest on its Expo 97 show when you visit the new EXPO web site: <http://EXPO.mow.org>.

OPEI reports the home page is designed to give an overview of EXPO, with links to more in-depth information by show categories. Included at the site are a listing of all the power and manually-operated products on display at the Louisville show, and a listing of seminars planned for the three-day event. The attendee section features all the highlights of EXPO 97, including daily schedules, Sunday night concert information, hotel lists and pre-registration information. A special section has been written for exhibitors, with exhibit rates and an application for exhibit space.

The Expo is scheduled for July 26 through July 28, 1997. For more information, visit the web site. If you're not on the net yet, call (502) 562-1962. □

### Three associations join to train 'ambassadors'

The GCSAA has joined up with Responsible Industry for a Sound Environment (RISE) and the Professional Lawn Care Association of America (PLCAA) in a public outreach effort called the "Ambassador Speakers Program." Goal of the program is to motivate and prepare industry representatives to educate the public about the green industry's environmental benefits and to address consumer concerns. A day-long training session was held in Cincinnati, Ohio, recently for 16 representatives. The pilot program has enlisted eight lawn care operators and eight golf course superintendents from Ohio, Michigan and Pennsylvania. Following the training, each Ambassador agreed to give presentations on industry and consumer issues to civic, community and school groups in 1997.

"We teach the basics, but the basics count: how to prepare an outline from a presentation, how to get rid of the butterflies, how to prepare a speech," explains Elizabeth Lawder, RISE communications director. "Our goal is to have about 60 ambassadors."

"We start with a little background, but we want to give a vocational [message] as well," says PLCAA President, Terry Kurth of Barefoot Grass, Madison, Wis. "What we're after is to try to get people in a high school group to get interested in the green

industry," says Kurth. "Realistically, they are our future employees, our future customers and they could be the future regulators."

"I have spoken to high school classes in my area about what I do for a living," says Kurth, "and it's amazing to hear the positive comments from students after they learn about the benefits of the green industry. This type of program will prepare our industry to talk to a wide variety of groups and will positively influence our industry's public image."

"As an association, we have put a premium on enhancing the image of the golf course superintendent," says Bruce Williams, CGCS, Bob O' Link Golf Club, Chicago. "I believe it is important to communicate to both golfers and non-golfers the positive impact that green industry professionals have on the environment. This program not only provides a vehicle to communicate that message, but helps create and reinforce the positive image of environmental stewardship to which we adhere."

The groups are seeking engagements for speakers in Ohio, Michigan and Pennsylvania. Anyone who knows of a school or civic group that would be willing to hear about the benefits of healthy turf is asked to call Debbie Rudin at (309) 691-2041. □

### USGA turf info on the Web

The USGA's Turfgrass Information File (TGIF) now appears on the World Wide Web. The site contains turfgrass research data and management literature. Find it at: [www.lib.msu.edu/tgif](http://www.lib.msu.edu/tgif).

### GCSAA: super certification program turns 25

The Golf Course Superintendents Association of America is in the 25th year of its certification program.

The goal of the program has always been to maintain a comprehensive curriculum of study for member superintendents including: turfgrass management; pest control; safety and compliance; financial management; and organizational management.

To qualify, individuals must be currently employed as a golf course superintendent, have completed a level of post-secondary education, possess superintendent experience and pursue GCSAA seminar continuing education units. The applicant then has one year to complete a comprehensive, six-part exam and go through the attesting process.

The GCSAA membership figure recently topped the 16,000 mark.

"This growth in membership not only mirrors the overall growth of the game, but also reflects our industry's commitment to professionalism," says GCSAA President, Bruce R. Williams, CGCS, of Bob O' Link Golf Club, Highland Park, Ill.

For more information on steps toward certification, contact the GCSAA at (913) 841-2240.

## Respect, responsibility are better motivators



*Ron Hall*

RON HALL  
Managing Editor

**S**ome of you are building your employee compensation plans now.

You want your plans to do three things: attract good employees, motivate them and retain them.

You want to get the most for your money. Production. Quality. Profit. Maybe you're looking at offering financial incentives or commissions to motivate them even more.

Be careful. You may discover that the incentives that you offer key employees can do more harm than good.

That's what Scott Brickman of The Brickman Group told about 300 fellow landscape professionals at last November's ALCA Conference in Cincinnati. The Brickman Group is one of the largest and most successful landscape companies in the United States.

Scott Brickman said his company has changed its philosophy concerning compensation. It's decided to move away from using incentives and commissions to motivate key employees. He said the decision didn't come without a lot of top-level soul searching.

"What we realized, what became apparent to us was that our incentive plans where we paid bonuses to branches that met certain hurdles, took away from sharing and teamwork between branches within the organization," he said.

That's not to say that Brickman employees saw their compensation chopped. They received the equivalent of their salaries plus the bonuses, said Brickman.

"It was a fairly hard leap for us to make. It was an expensive leap," he admitted to his colleagues.

Rather than emphasizing monetary incentives and commissions, the company focused on building job descriptions with each category

[LANDSCAPE/GROUNDS]

PAGE 4 L ▶

UTEP's desert grounds a big job

PAGE 8 L ▶

Pricing to meet today's market

PAGE 14 L ▶

Give your ballfield the season off

PAGE 16 L ▶

Why community service works

PAGE 22 L ▶

Your trucks needs TLC with PM

PAGE 23 L ▶

Heritage Lawns goes commercial

tied to an appropriate "range" of salaries.

A successful landscape company functions like a great basketball team or a famous orchestra. All players add their talents toward a single goal, Brickman said. It's not like a bowling team where you add up all scores and the highest score wins.

The things that really make a difference with employees, he added, are things like security, trust, respect, "and really giving employees responsibility." **LM**

Questions? Comments? Phone Ron at 216/891-2636; fax him at 216/891-2683 or e-mail him at [lscap@en.com](mailto:lscap@en.com).



Brickman: financial incentives often aren't such hot motivators





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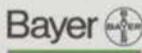


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# Texas-size tasks

*Veteran grounds foreman Tony Sullivan relies on soil tests, efficient irrigation and the dedication of his 23-person crew to maintain UTEP's unique and varied landscapes.*

By DON DALE

**A** landscape manager needs to be sharp to work at a university with over 15,000 students. Making his job even more interesting is the fact that the university, the University of Texas at El Paso (UTEP), lies in the Chihuahuan Desert but has a variety of landscaping.

Tony Sullivan, UTEP's ground maintenance foreman, relies on solid turf and landscape management fundamentals to keep the grounds—which must fit in with UTEP's Bhutanese architecture—looking good.

This campus is "built on bedrock" in the stony hills east of the city. The soils are alkali, and short on sulfur.

"The turf tends to not be as

lush or green," says Sullivan who swears by soil testing. Regularly he sends samples to a reliable consultant at a professional soil testing laboratory. If he doesn't, he realizes, the turf can get away from him quickly. This is especially true on athletic fields which are being constructed or renovated.

"By soil testing you get a good idea of what you need to apply to your soils and your turf," says Sullivan, who spent 20 years in grounds maintenance in the U.S. Air Force before coming here.

He says that not only the long-term health of the turf benefits, but also the budget. A lot of money has been saved here on chemical amendments that might have been used in

guessing how to improve yellow or dying grass.

Sullivan says that common bermudagrass is the standard on campus. That is not written in stone, though.

"In one new field we had fescue, but it wasn't holding up well," he says of UTEP's new women's soccer field. So he re-sodded it with Tifway 319 bermudagrass.

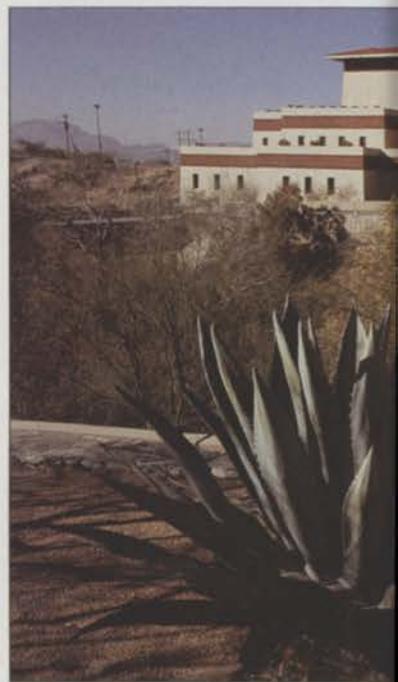
Winter overseeding is not customary on campus fields, but the new soccer field is an exception.

"We have a small sod farm," says Sullivan. It's a small area set aside for sod cutting. If an area is going to be disturbed by construction, a crew member cuts and transplants sod for later use.

## **Irrigation? You bet!**

Irrigation is a big deal in a region that brags about seven or eight inches of rain annually. Most of the campus has been converted to automatic controllers, and even those are being upgraded.

"We're in the process of installing Maxicom computerized sprinklers," says Sullivan. Those eventually will be controlled from one central computer. "We'll also have soil moisture sensors, and the system will be able to detect breaks."



Drip irrigation is a must, and it's installed even in the most isolated little planter. The exception is where native plants such as ocotillo and barrel cactus make up the display.

The soil here is so dicey that turf crews use hand sprayers to apply soil wetting agents prior to fertilizing. The wetting agents are irrigated in for a few days before nutrients go on.

## **Tricky tree maintenance**

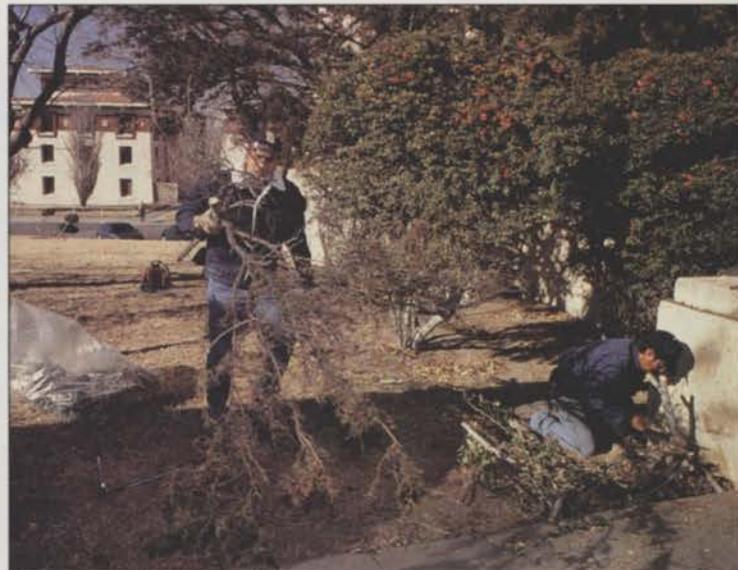
Tree maintenance can also be tricky. Many campus trees are deciduous, but there are also a lot of Mondale pines and Italian cypress. The trend is toward more drought-tolerant trees such as mesquites and palo verdes, both native to the area.

"We have a lot of mulberries," Sullivan says. Those are the fruitless variety, but the pecans and pistachios on campus bear fruit.

Tree nutrition is done mainly through drip injections, but he also uses Mauget equipment to inject nutrients right



Tony Sullivan: soil tests tell you what products to apply, and they help save money!



▲ UTEP grounds staff is assigned specific areas to maintain.

◀ The College of Business surrounded by native vegetation.

into the cambium layer of trees. The same equipment can be used to control insect pests such as elm leaf beetles.

Palm tree pruning is another problem, but the UTEP crew handles its using a High Reach. "The tall ones we do once a year," says Sullivan. "The small ones that might obstruct a sidewalk, we do more often."

#### Well-delegated, busy staff

Sullivan has developed an

efficient method of using his 23-person staff. Two are assigned to irrigation installation and maintenance, and three, including Sullivan himself, hold pesticide application licenses.

The rest of the crew is divided into more general duties. Generally, they maintain the same couple of buildings and their surroundings. This instills a sense of pride and ownership in the crews, he believes.

"We know who's supposed to do it," Sullivan says. If the pruning, edging, planting and trash hauling have not been done in a certain area, it's easy to determine who's responsible. Mowing, on the other hand, is done by most everyone over a two-day period.

Sullivan's department is extremely safety conscious. UTEP provides free goggles, lifting belts, gloves and coveralls. His budget for this equipment is \$3,500. "We also budget \$1,200 for training. Also our people attend defensive driving training," explains Sullivan.

Safety not only reduces hazards to workers, it saves the university money. Sullivan points out that in the past three years, due to the safety programs, UTEP's physical plant has reduced its workman's compensation costs by \$600,000.

One luxury that Sullivan

likes about the university, in addition to its well-designed physical plant office and workshop area, is a 2,800-square-foot greenhouse. It's used as a nursery, particularly for the drought-tolerant plants that go in around campus. He also raises a few flowers for beds.

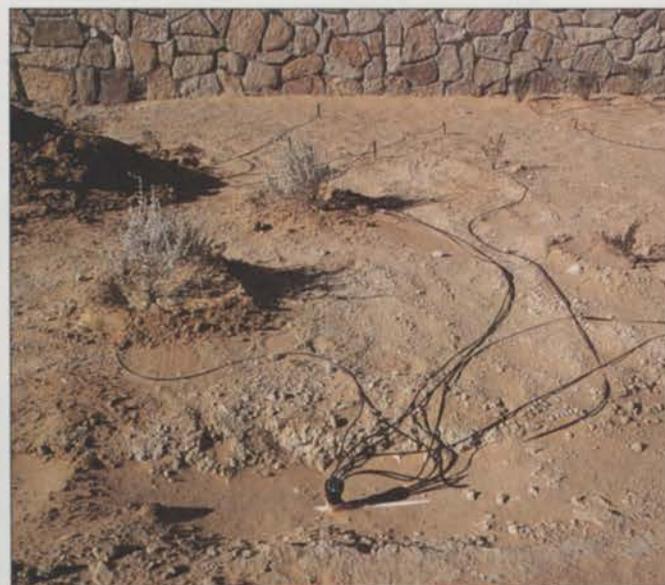
The nursery also provides the plants for the university's annual plant sale which raises funds for the grounds.

The UTEP campus is fond of its unusual vegetation, but it is moving toward more of a native look.

This is seen in low-use areas such as medians along streets and on slopes adjoining buildings and parking lots.

These drought-tolerant plantings need very little maintenance or irrigation, and they bear the striking look of the southwestern deserts. □

—Don Dale is a freelance writer based in Willcox, Ariz.



◀ Drip irrigation is part of the installation of a new planter.

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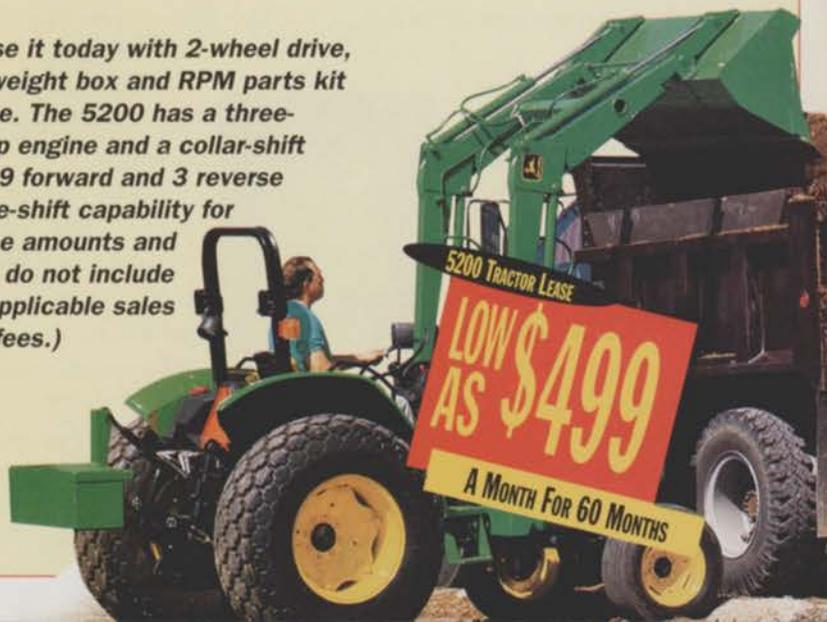
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# Fight low bids with value, reputation

*You will likely always have to deal with competitors who undercut on bids. You can fight back—and gain clients—if you stress the value of the work you do and if you know the economics of the green industry.*

by JOHN CALSIN, JR.

**P**ricing is as bad now as I've ever seen it," says a successful landscape contractor of long standing and excellent reputation in the Philadelphia region. "I have gotten discouraged," he continued, "about writing articles about this particular subject because the people who should read them don't; or, they're not interested."

He sounded despondent, almost melancholy as he finished by saying,

"It's a dilemma that's been with us for a long time, as long as there have been contractors, and it's going to be with us forever."

Is there a pricing dilemma in the green industry, in which people hungry to make any kind of money are hurting the image and pricing structure of the true professionals?

Or is it just the American Way: to offer a lower priced bid in the hopes of getting the job? The answers may surprise you.

## **Overhead a reason?**

David Minor is president of Minor's Landscape Services, Fort Worth, Texas. He is also completing his term as 1995-96 president of the Associated Landscape Contrac-



**Minor: Consider free enterprise system.**

tors of America.

When asked if there is a low pricing problem, he answered, that "it all depends on the perspective you're coming from. If you're the low-priced operator, it's not a problem. If you're the high-priced operator, it is.

"I hate that word," says Minor, when asked about 'lowballing.' "I really don't know what that word means, to tell you the truth."

To some extent, Minor believes that low pricing is a function of the difference in overhead between companies.

"I've run up against people who have put prices on the street that are a lot lower than mine, that are satisfying the customer quite nicely," says Minor. "It's frustrating for me because maybe their overhead is a little lower, or maybe they're working out of their garage. Maybe they do the work themselves, and they've bought themselves the job, but that's the American, free enterprise system.

"I have a different outlook than my peers on this," says Minor, who employs about 175 people. "I think there is a little too much feeling sorry for one's self about not being able to price competitively."

Minor agrees that some service providers who put lower

than average prices on the street.

"They don't have insurance and don't have the technical qualifications like we do, but the bottom line is the customer is buying that service. There are a lot of customers out there where that stuff isn't important to them. This depends on the marketplace."

## **The meaning of value**

Joel Lerner does not believe there is a low pricing dilemma in the green industry. A leading landscape industry consultant, Lerner believes the customer just needs to be educated to the value of the work he or she will be paying for. The first step, says Lerner, is to be able to justify your fees to yourself, before you talk to the customer.



**Lerner: notoriety brings leverage to price higher.**

Can the contractor answer this question: What gives value to what a landscape contractor does?

Lerner believes that part of the answer to this is in customer variables such as curb appeal, increasing property values, increasing your own stock among your neighbors, or increasing a home's resale value. He sees landscaping as the only home improvement that increases as it matures.

## **Make the clients want you**

Lerner does not compete with lowballers. He says a client has to want him. "So I make them want me. If they want a lowballer, that's great. I'll be here next year. I just can't compete with someone who is a lowballer. I feel for a guy who has a lawn mower and a pickup truck.

## Low pricing with profit motive

Frank Ross of Ross-Payne & Associates, Chicago, Ill., believes there are times when pricing a job at a loss can be part of a company's profit motive.

Ross does not believe every company that prices low is trying to buy work for cash flow purposes.

"Why price below break even? I can think of several reasons," says Ross. Those reasons include:

—Marketing strategy: price the base bid

thinly, then make it up on either changes to contract or extras;

—"Loss leader" the first phase of a project because you know that once on the job you can negotiate the next phase or phases;

—Possibly, when attempting to open up a new market or expand an existing one, to penetrate a geographical area where another landscape contractor has been serving clients for many years.

Ross believes these are some of the solid, profit-minded reasons why a knowledgeable contractor, who knows how to bid correctly, "would very easily and energetically bid a job at a loss.

"The very good contractors out there, that's what they do. I would never price a job at or below my break even, even if I didn't have a profit motive associated with it." □

J.C.

He's got to eat."

"I'm not a run-of-the-mill landscaper," explains Lerner. I've got a lot of notoriety in the Washington, D.C. area," says Lerner, who writes a garden column for the *Washington Post*, and hosts "The Garden Show" on WWRC-AM.

### Trends and 'talking points'

Lerner sees niche marketing as an important slice of the pricing pie. He believes reputation is very much a starting place for being able to charge higher prices.

"You have to create a reputation for yourself and a hook for yourself," says Lerner. With notoriety, Lerner explains, comes the leverage to price higher. Part of the way he achieves this is through what he calls "talking points."

A talking point helps one associate the name of a company with its specialty. He mentions a friend's company, called Wildlife Habitat.

"If people want to know how to create wildlife habitats, which is a tremendously hot trend today," says Lerner, "they're going to call Wildlife Habitat."

If possible, Lerner suggests using trends to make yourself into a very much in demand organization rather than worry about lowballers.

### Landscape Econ. 101

What must someone who may be new to the green industry consider important?

"They'll need a course in economics," says Lerner. A beginner needs to be in touch with the profit-loss statement and

when to look at those numbers.

"It is important to figure out the real cost of operating your business. Then, figure out what you've got to make beyond that. In all fairness, there is some trial and error (concerning how much to charge) when you're new."

### Fair and careful pricing

Ed Laflamme began his landscaping ca-

reer as a moonlighting grass cutter.

Today, he leads Laflamme Services, Inc., Bridgeport, Ct. In landscaping for 25 years, Laflamme employs more than 100 full-time employees. He believes price slashing will likely remain an industry problem.

"It's a relatively easy business to start.

Everybody and his uncle who is out of

cont. on page 12L

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**Ed Laflamme, at right, prices services with an eye toward value for clients who know how to crunch the numbers.**

*cont. from page 9L*

work can cut grass," says Laflamme. "There's not much overhead to start. So they arrange their pricing structure with the overhead they have at the time."

Laflamme's customer base is about 90 percent commercial, and he approaches his pricing fairly and cautiously.

"I don't want to be known as the high price provider. In my market, that's suicide," says Laflamme. "I'm in an area of astute businessmen, Fortune 500 companies. Those people want value for their money. They don't necessarily want a cheap price, but they don't want to pay a lot of money either. Their whole deal is value. Am I getting value for my money?"

A key is sound financial management, says Laflamme, which is where someone such as Frank Ross comes in.

Ross, president of Chicago-based Ross Payne & Associates, has been a consultant to the construction and green industries for 30 years, and is author of "Pricing" and "Financing Your Business."

"The contracting movers and shakers in

1975—the leaders 20 years ago—aren't around today," says Ross. "That's because they simply did not pay attention to the financial side of the business. They just thought that was going to take care of itself. Obviously, it didn't."

Ross has strong opinions on the importance of financials to a green industry professional, and says neglect in pricing has had a ripple effect.

"If the industry had learned as much about finance and financial management—especially in the area of estimating—as it has learned about horticulture, equipment

## *The contractor has to be able to explain the value of a landscape.*

and people management, this would be, absolutely, bar none, the most wealthy industry going. But what we forgot was the financial side of things." □

—John Calsin, Jr., of Lighthouse Writing Services, is based in West Chester, Pa.

## Keep on doing what you do best

**Larry Iorri, president, Down to Earth, Wilmington, Del.**

▶ "Good lawn care companies and landscapers should look at the fly-by-nighters from a different perspective. You make a bid, and a fly-by-nighter comes in 20 percent lower than you and you lose the job. I believe you've got to learn to sell yourself.

"I give out a four-page portfolio that includes commercial and residential references, my pesticide license number and insurance contacts to every prospective customer. Then I give them a bid. If they don't want you at that point, you probably don't want their business, anyway."

**Ron Kujawa, president, KEI Enterprises, Kudahy, Wis.**

▶ "Pricing is a big problem. Until we get people more in tune with following good business practices, we're not going to be an industry that attracts many venture capitalists.

"How can we address these [pricing and competition] concerns and maintain a good level of service at fair prices, not just come in and cut and slash prices?" Kujawa says.

**Jim Huston, industry consultant, Englewood, Colo.**

▶ "You're always going to have lowballers. Lowballers are 'grinding' people. I advise my clients to go after good customers, recognize a quality standard, and market aggressively.

"There's a psychology of going broke that works in the lowballer. When you're in a financially distressed situation, you don't analyze a bid correctly, you don't analyze labor, other costs, add overhead, add net profit. We say, 'this job is going to bring us free and clear of all our costs.'

"When you get someone going broke, they say, here's a \$100,000 job they want done for \$60,000. The fact that they're going to lose money on it is not a problem. All they think is, 'Here's \$60,000 I can throw at old bills.'

"The fact is he will lose money and dig himself a bigger hole."



**Ross: industry missed out on service dollars.**



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# This field is closed!

*It's possible to take a field out of play for a year. Start by proving the field is overused.*

By DAVID D. MINNER

**I**f your playing fields are in serious need of a long-term rest, develop a program where one or more fields are taken out of play for at least one year. Impossible? Try this.

As an example, let's use four soccer fields that are intensely used spring and fall. All attempts at coring, drill seeding, and other reestablishment practices have not produced acceptable grass cover because there has not been enough time for grass to reestablish and mature.

Explain to parents, coaches and others that a one-year rest period is important so that the field can be used continuously for the next three or four years.

## Fair warning

Don't announce at the start of soccer season that you want to renovate a field and that it won't be available for play. Instead, get involved in scheduling for the entire soccer league. Find out when it has its first meeting so that you can present your plan for providing a safer facility by removing



Closing a field for one year gives you time to get it back into shape.

one field each year for renovation. Be firm, and don't accept any period less than one year to rest the field.

Explain that 95 percent grass cover may occur two months after seeding, but it will take at least one year for plants to produce enough biomass to form a protective mat of grass that is more traffic tolerant and shock absorbing. Insist that a game schedule for next season be produced without using the field. Once the schedule has been set without using the "rested" field, you're home free. If you approach the planning

committee after the game/practice schedules are set, they will be reluctant to change the schedule to rest a field.

## Use sod to reestablish

Next year repeat the process: play on three fields and rest one. This three-year rotation will improve the playing conditions of all fields. Sodding is preferred when reestablishing the "rested" field. Don't compromise the renovation process by sodding and then allowing play before the full one-year rest period is over.

Take a positive approach. Let the committee know that they will affect field conditions when they use their expertise to make the schedule work with one less field. Acknowledge that the dollars spent on seed, coring and other materials will be more effective since the "rested" field won't wear out as fast as the others.

Don't say, "it will sure make my job easier". Some may perceive that as laziness.

What you mean to say is that your time and resources spent on renovation will be the same, but the field performance will improve. □

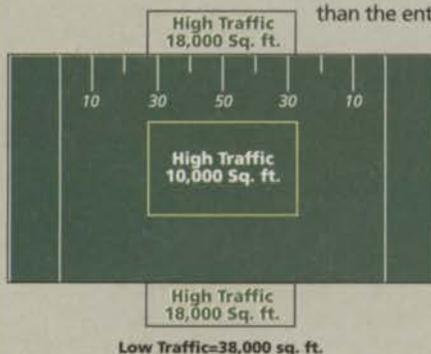
—David D. Minner is an associate professor in the Department of Horticulture at Iowa State University.

## Concentrate on high-traffic spots

Identify high traffic areas on each field and concentrate resources on those areas to provide a better return on your investment. High traffic areas of a football field (10,000 sq. ft. center plus side lines) that require more resources are usually six to 10 times smaller

than the entire area in and around the field (60,000 to 100,000 sq. ft.). If you are treating the entire field area with one management program then you can reduce input from lower traffic areas and increase input on higher traffic areas. High traffic areas require additional coring, seeding, fertility, and topdressing with amendments such as sand, calcined clay and compost. □

D.M.

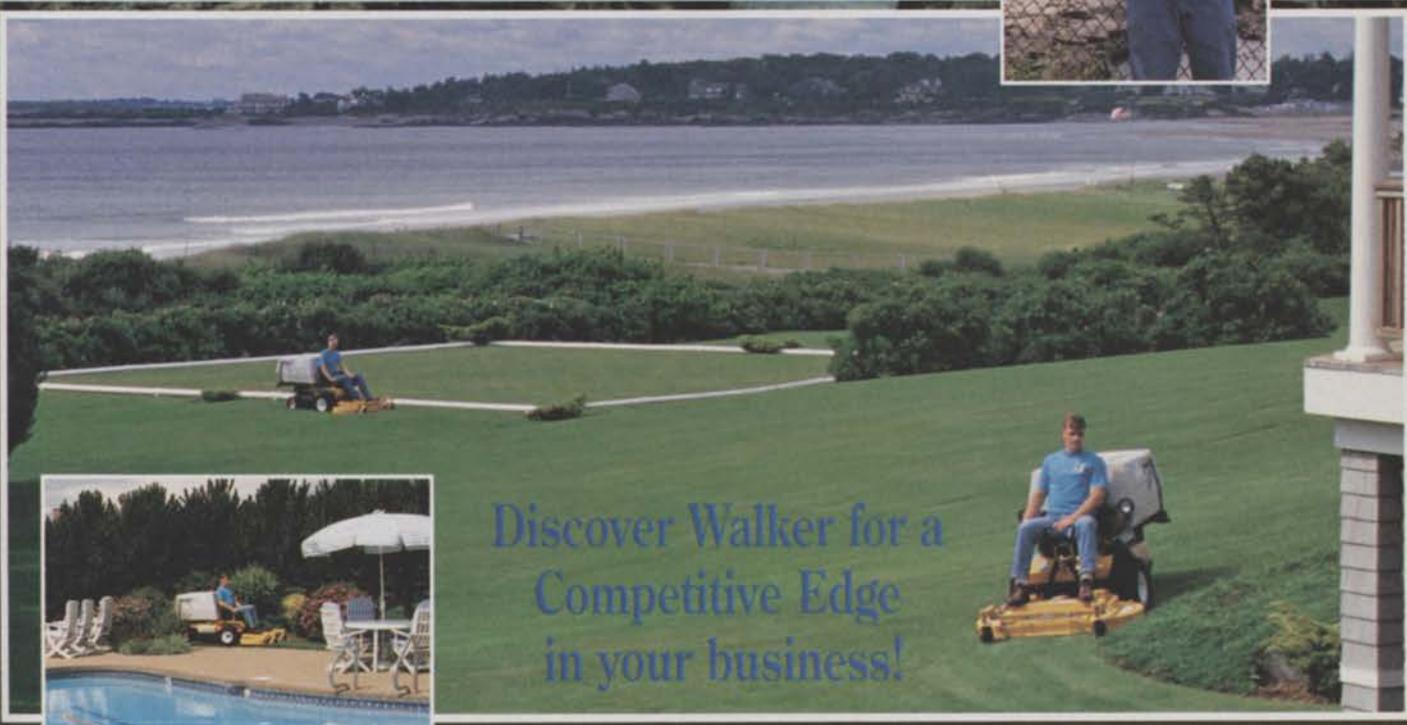


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Circle No. 144 on Reader Inquiry Card

# Charity projects are people pleasers

*Talent, tools and materials provide a community with nearly \$200,000 worth of park improvements.*

by AMY SNYDER, Ruppert Landscape Company

It's 5:30 a.m., rainy and dark, as 650 employees from Ruppert Landscape Company reach Kennedy Park in northwest Washington, D.C., to turn a run-down community park into a functional, beautiful neighborhood recreation area.

The park is the cornerstone of community-driven revitalization efforts made possible by a partnership between the public and private sectors.

This uniting of talents, tools and materials provided community residents with nearly \$200,000 worth of park improvements.

A partner in this undertaking was Clark Construction, which donated half the value of the work. The end result? A brand new little league baseball field, an irrigation system, repaired fencing, upgraded playground equipment, new picnic areas, restored blacktop recreation lots, and a 2,500 sq. ft. educational sensory garden of shrubs and perennials, and other landscaped areas.

The Washington Park renovation is Ruppert's largest goodwill undertaking, but it is by no means the only pro-bono work that is performed. Donated plant material and labor, sponsorship of school and community projects, and shared horticulture knowledge are a few of the ways Ruppert gives back to the community. The argument of whether it makes sense to give such services away for free is a valid one.



Sodding Kennedy Park was Ruppert's primary training event and largest community service effort. Employees gained a lot of satisfaction in restoring this Washington D.C. park.

However, when able to see the advantages, giving back to the communities in which we live and work actually makes good business sense.

#### What price employee satisfaction?

Aside from filling a need within the community, charitable work can go a long way in increasing employee satisfaction. Many employees appreciate the opportunity to use their everyday skills to benefit others; this in turn equates to increased motivation and overall job gratification. A company may look at the total expenditure of time and materials given during a large charitable event, and question whether the benefits derived are actually worth the investment. But when you break the contribution is broken down in terms of number of employees who participated in the event, then the investment becomes more tangible.

For example, a contribution of \$50,000

is significant. If, however, your company has 500 employees, and you can manage the event so that each of those employees receives \$100 worth of pride, satisfaction and motivation through their involvement in the event, then the company's participation was valuable.

The key to managing the event successfully is to keep employees involved and informed throughout the process. After the event, publicize both the deeds and the outcome so that employees can see the results of their contributions.

If the company is to be recognized or given an award for its contribution, it's a good idea to have a front-line employee accept the award on the company's behalf. This adds to the employees' sense of 'ownership' of the project, and is an invaluable expression of the company's appreciation of its employees.

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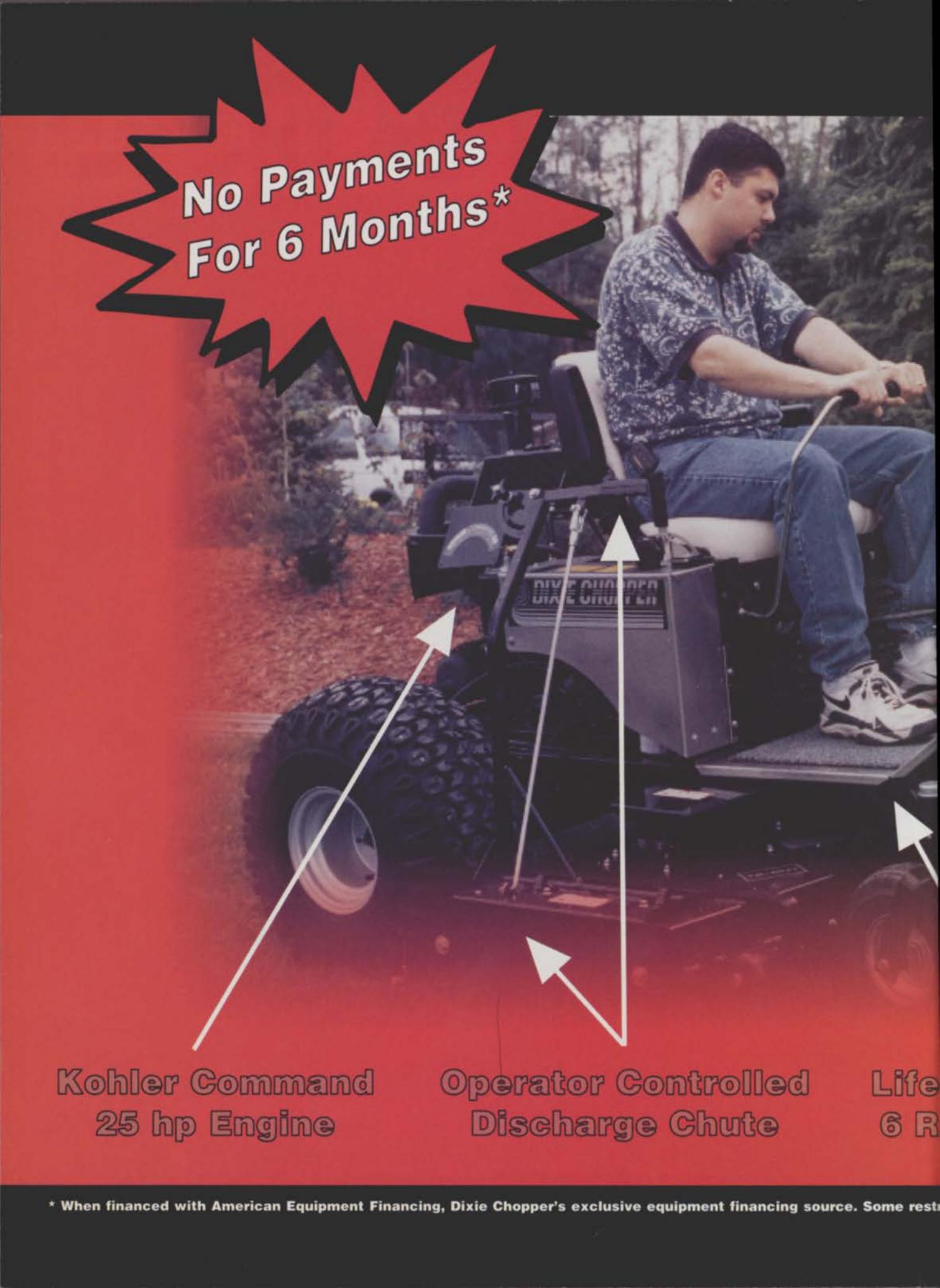
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Charitable giving provides employees with another reason to want to work for you.

#### Good public relations

From a marketing standpoint, tremendous public recognition can be gained from performing community service activities.

Having your company's name heard in connection with a good deed leads to a positive public association. Signs or other promotional material acknowledging your company's contribution to a project, or media coverage of community support, are a few examples of marketing benefits.

#### Potential business benefits

Gains in both sales and recruiting efforts can often result.

There is always the possibility that someone you worked with, or who heard about or saw your service efforts may be impressed enough to give your company some paying business. Additionally, participating in a charitable event will provide your company with video footage, letters of commendation, press clips and slides or photographs, all of which can be used as sales tools.

In addition to charitable activities, motivating the existing workforce can help to attract prospective employees who have

similar values. It's always advantageous to give potential employees yet another reason to want to work for you.

#### Expanded knowledge

Another unique benefit comes when you work in conjunction with other organizations. In projects you support, you get to know organizations that you may not normally have contact with—government agencies, community groups, large corporations, small non-profit organizations. The experience:

- ▶ gives you ideas about how other organizations operate;
- ▶ confirms policies and procedures that are a part of your company;
- ▶ serves as a catalyst for change;
- ▶ better enables your company to understand how these organizations operate;
- ▶ increases the potential for future positive business endeavors.

#### Corporate responsibility

Although more of a moral reason than a business one, if a charitable need exists within the community and your business is capable of providing that product or service, then there is a certain obligation to do so. All relationships, including those between corporations and the communities which support them should be a give and take.

Can giving a charitable contribution be a rewarding experience? While it is hard to part with time and money, the answer is yes if your contribution is handled as an investment, and managed as such. Not only will your company have an opportunity to give something back to the community, but it can also gain something in the process: gratified employees, contact with potential clients, new ideas for effective business practices, and a reputation for being a good corporate citizen. If it's done right, the investment will pay for itself. □

*The Ruppert Co. has offices in Maryland, Washington, D.C., Virginia and Georgia. Photos courtesy Ruppert.*

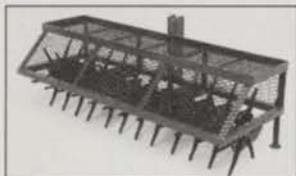
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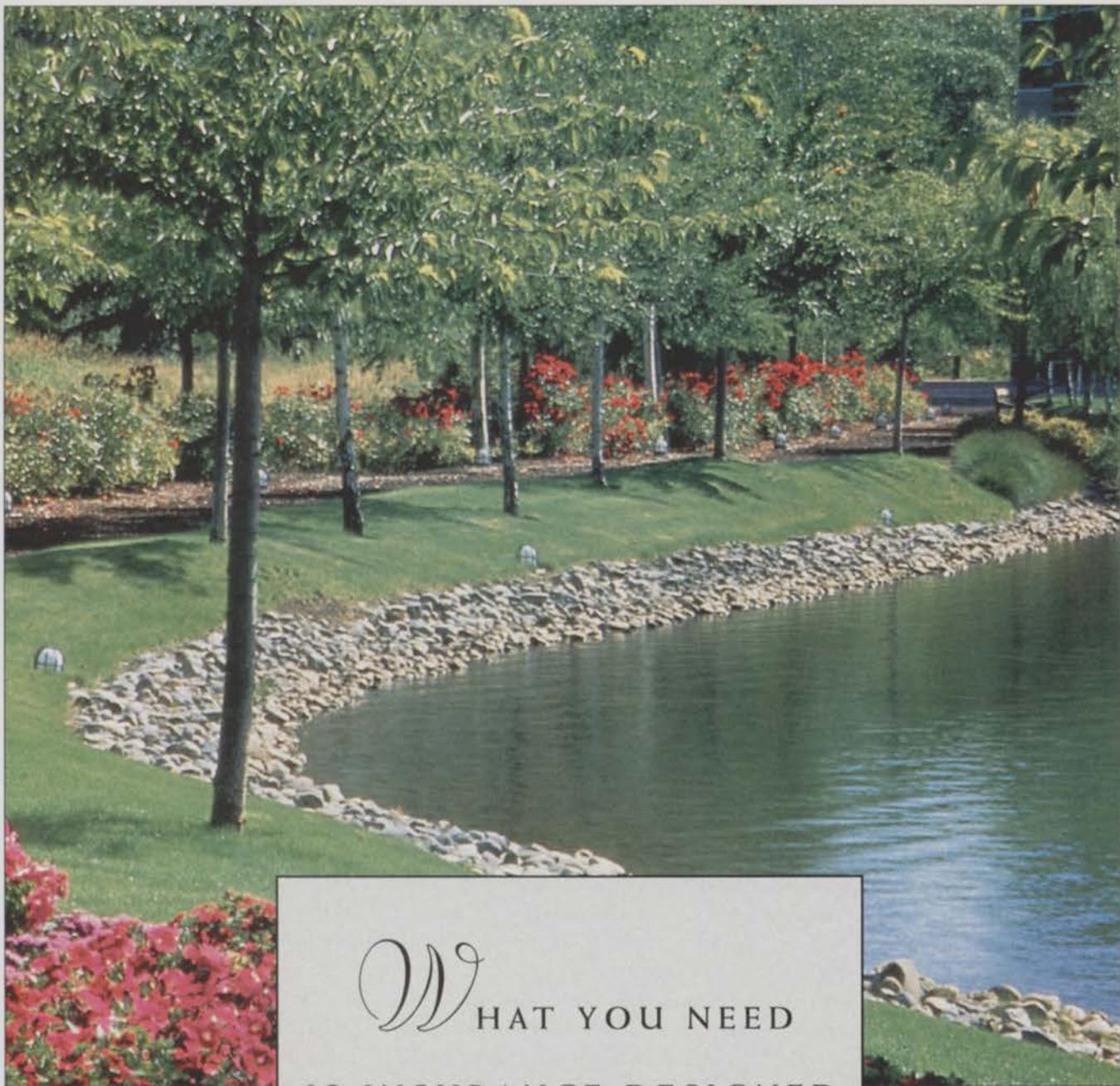
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# 'PREVENT DEFENSE'

## for equipment

*Develop a preventive maintenance schedule for your vehicle and equipment fleet. It saves you money by reducing unexpected costs.*

by RON HALL / Managing Editor

**P**reventive maintenance (PM) is the most vital service that your trucks, and for that matter, other major mechanical equipment receives.

There are many good reasons for PM, but three are foremost:

- ▶ equipment safety;
- ▶ road call prevention (resulting in unbudgeted expenses and lost production), and
- ▶ protection of the equipment.

Vehicles and equipment age. Operator's habits vary. Without complete, easy-to-use records of the way your vehicles perform, and the way your mechanics service vehicles and equipment, you cannot know how well your PM program is working.

But what exactly is PM? Ron Turley, a nationally known fleet maintenance expert, describes it as a thorough, yet efficient, inspection of a vehicle or piece of equipment to determine its condition. It should be conducted using an easy-to-understand, easy-to-update form. The form is a general road map to the detailed inspection of each vehicle: a list of items to be examined, adjusted and, if necessary, replaced before anticipated failure.

The replacement of items nearly worn out can be planned for the next PM interval, the parts obtained and then time scheduled for this activity. The PM should

pinpoint and correct, if possible, any problems or potential problems before they cause a breakdown or bigger problems.

The items necessary for a complete program include:

- ▶ a good form that "leads" the mechanic through the PM,
- ▶ an accurate PM schedule. Generally, a PM is done at a scheduled number of vehicle miles or hours of operation,
- ▶ a well-trained mechanic,
- ▶ a quality control program.

"A lube and oil jockey will find little or nothing wrong with the vehicle," says Turley who, before starting his own business, managed the huge UPS vehicle fleet. "We want a problem finder.

"If all you're getting out of PM is an oil change and a grease job, it ought to take 12 or 14 minutes," he adds. "Generally, a PM will uncover some problems. If it never does, you might as well send your trucks to a Jiffy Lube."

But, even an ace mechanic should follow a pre-established PM procedure using a PM checklist. "A good PM form should lead the mechanic through the PM in a logical sequence," says Turley. The process starts as soon as the mechanic drives the vehicle into the shop and surveys the condition of its cab and instrumentation.

### **A systematic inspection**

Then, using the PM checklist, the mechanic begins the systematic inspection of components such as battery and cables, fluids, brakes, shocks and springs, hydraulics, electrical wires and connections, tires and anything else that needs periodic attention. An efficient way to do this is to start at one end of the vehicle, say the left front wheel, then work in a circle around it, says Turley.

To be efficient, a PM should allow the mechanic to do everything he can reach

from one spot before he moves on to the next spot. It shouldn't require him to retrace his steps. In the process he notices such things as water and oil leaks, cracked sheet metal or frame members, crimped or rubbing hydraulic lines, loose or lost bolts, fraying belts.

While a vehicle/equipment PM should be thorough, it shouldn't be exhaustive. For instance, if a mechanic can check the calipers and brake pads without pulling a wheel, why pull it? Or, why change the oil in your vehicles at 3,000 miles if an oil sample analysis from your vehicles tells you that you don't need to change oil and filters until, say, 4,500 miles?

"You have just wasted 50 percent of your PM labor, and 50 percent of the cost of oil, and 50 percent of the cost of filters," says Turley who recommends having an oil company test samples from fleet vehicles.

### **45 minutes max**

As a rule of thumb, the PM on a pickup truck should take place every 3,000 to 6,000 miles (or 90 days) and require no longer than 45 minutes; a medium diesel vehicle every 8,000-10,000 miles (or 120 days) and take from 1½ to 2 hours.

"A PM is not just a lubrication and an oil change. It's an inspection of a vehicle," says Turley. "A good PM program should uncover every little thing that's wrong with that vehicle, and sometimes the big things too, before the driver or operator complains. It will substantially improve the uptime of your vehicles." □

—Ron Turley Associates, Inc. offers fleet management software and support services. Call (800) 279-0549 (USA) and (800) 473-5338 (Canada) or E-mail: [sales@rtafleet.com](mailto:sales@rtafleet.com).



Jim Leszuk, president of Heritage LC, and assistant Karen Doyle.

# A 'commercial' success

*Connecticut's Jim Leszuk is glad he redirected his company away from the residential and toward the commercial lawn care market.*

**H**eritage Lawns, Inc., headquarters in Plainville, Conn., made a bold move last year, and it paid off. After experiencing its first full season committed strictly to the commercial market, Jim Leszuk, Heritage's owner and president, is all smiles. Currently servicing only schools, industrial parks, condo complexes and businesses, Heritage is carving a niche for itself that seems to be working well.

In early 1996, Leszuk realized that Heritage Lawn's residential customers were once again the target of the national lawn care chains.

"Every spring we get a certain percentage of customers who just can't refuse the pricing tactics of these quota-based companies," says Leszuk. "I understand that times are tough. I'm just like everybody else; when someone offers you the same service for less money, you feel you owe it to yourself to try it."

"For years we'd have customers leave and then come back when the condition of their landscapes suffered. Every year we would lose a small percentage of customers and get

some new ones. But all the paperwork and marketing cost time and money.

"Every year it got harder and harder to compete in the residential market without sacrificing quality. This was not the way we wanted to go," says Leszuk.

After much thought and market research he decided to focus on commercial work. He sold his residential division.

"We have found in the commercial market that price is less likely to be the determining factor. The decision maker in a company is more likely to pay attention to results as it could be his reputation or even position on the line. If the properties look good, so does the manager," says Leszuk. "And the properties are looking better than ever."

"With diversification it seems quality suffers in so many cases, so by focusing on just one area of the market service could only get better."

#### **Personal service**

Heritage is now able to train their employees and purchase equipment specifically for commercial properties.

"We are big enough to handle 100-acre properties but small enough that our customers can call and speak to

me anytime they wish, and I will know what they are talking about," says Leszuk.

"I know all the properties. I keep in touch with my contacts. Personal service really means a lot to people and I take pride in the properties we service. Communication is key in this business especially where most of our programs are based on IPM (integrated pest management) methods."

Leszuk says his commercial clients appreciate the level of service Heritage is now able to offer them. That, of course,

bodes well for Heritage too.

"Overhead is down and referrals are up," says the owner.

"This move has really helped morale around here too. Although we miss our residential customers, it's nice not having to explain about dog spots or race race to a lawn 'full of weeds' and find one dandelion under the deck," he adds.

The shift allowed Heritage to strengthen its tree & shrub program and offer organic lawn care options. The company is also expanding its service area to western Massachusetts. **LM**



Heritage Lawn Care's offices are in Plainville, Conn., but the company is moving into western Massachusetts, too.

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- 08  285 Irrigation Contractors
- Other (please specify) \_\_\_\_\_

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- 14  315 Shopping Centers, Plazas or Malls
- 15  320 Private/Public Estates or Museums
- 16  325 Condos/Apartments/Housing Developments/Hotels/Resorts
- 17  330 Cemeteries/Memorial Gardens
- 18  335 Hospitals/Health Care Institutions
- 19  340 Military Installations or Prisons
- 20  345 Airports
- 21  350 Multiple Government Municipal Facilities
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- 23  360 Sod Growers/Turf Seed Growers/Nurseries
- 24  365 Dealers/Distributors/Formulators/Brokers
- 25  370 Manufacturers
- 26  Other (please specify) \_\_\_\_\_

**2. Which of the following best describes your title? (check ONE only)**

- 27  10 Executive/Administrator- President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant
- 28  20 Manager/Superintendent- Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor
- 29  30 Government Official- Government Commissioner, Agent, Other Government Official
- 30  40 Specialist- Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
- 31  Other Titled and Non-Titled personnel (please specify) \_\_\_\_\_

**3. SERVICES PERFORMED (Check ALL that apply)**

- 31  A Mowing
- 32  B Turf Insect Control
- 33  C Tree Care
- 34  D Turf Aeration
- 35  E Irrigation Services
- 36  F Turf Fertilization
- 37  G Turf Disease Control
- 38  H Ornamental Care
- 39  I Landscape/Golf Design
- 40  J Turf Weed Control
- 41  K Paving, Deck & Patio Installation
- 42  L Pond/Lake Care
- 43  M Landscape Installation
- 44  N Snow Removal
- 45  O Other (please specify) \_\_\_\_\_

**4a. Do you specify, purchase or influence the selection of landscape products?**  Yes  No

**4b. If yes, check which products you buy or specify: (check ALL that apply)**

- 46  1 Aerators
- 47  2 Blowers
- 48  3 Chain Saws
- 49  4 Chipper-Shredders
- 50  5 De-icers
- 51  6 Fertilizers
- 52  7 Fungicides
- 53  8 Herbicides
- 54  9 Insecticides
- 55  10 Line Trimmers
- 56  11 Mowers (reel/rotary)
- 57  12 Snow Removal Equipment
- 58  13 Sprayers
- 59  14 Spreaders
- 60  15 Sweepers
- 61  16 Tractors
- 62  17 Truck Trailers/Attachments
- 63  18 Trucks
- 64  19 Turfseed
- 65  20 Utility Vehicles

**5. Do you have a modem?**  Yes  No

**6. Do you subscribe to an on-line service?**  Yes  No

**7. Is CD-ROM available in your workplace?**  Yes  No

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102	120	138	156	174	192	210	228	246	264	282	300
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104	122	140	158	176	194	212	230	248	266	284	302
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107	125	143	161	179	197	215	233	251	269	287	305
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113	131	149	167	185	203	221	239	257	275	293	311
114	132	150	168	186	204	222	240	258	276	294	312
115	133	151	169	187	205	223	241	259	277	295	313
116	134	152	170	188	206	224	242	260	278	296	314
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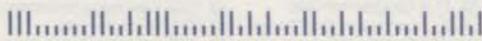
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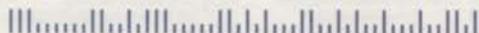
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CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
PHONE (\_\_\_\_) \_\_\_\_\_ FAX (\_\_\_\_) \_\_\_\_\_  
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I would like to receive (continue receiving) LANDSCAPE MANAGEMENT free each month:  Yes  No

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**1. My primary business at this location is: (check ONE only)**

- 01  250 GOLF COURSES
- CONTRACTORS/SERVICE COMPANIES**
- 02  255 Landscape Contractors (installation and maintenance) 06  275 Landscape Architects  
03  260 Lawn Care Service Companies 07  280 Land Reclamation and Erosion Control  
04  265 Custom Chemical Applicators (ground and air) 08  285 Irrigation Contractors  
05  270 Tree Service Companies/Arborists  Other (please specify)
- INSTITUTIONAL FACILITIES**
- 09  290 Sports Complexes 16  325 Condos/Apartments/Housing  
10  295 Parks Developments/Hotels/Resorts  
11  300 Right-of-Way Maintenance for Highways, Railroads or Utilities 17  330 Cemeteries/Memorial Gardens  
12  305 Schools, Colleges, Universities 18  335 Hospitals/Health Care Institutions  
13  310 Industrial or Office Parks/Plants 19  340 Military Installations or Prisons  
14  315 Shopping Centers, Plazas or Malls 20  345 Airports  
15  320 Private/Public Estates or Museums 21  350 Multiple Government Municipal Facilities  
 Other (please specify)
- SUPPLIERS & CONSULTANTS**
- 22  355 Extension Agents/Consultants for Horticulture 25  370 Manufacturers  
23  360 Sod Growers/Turf Seed Growers/Nurseries 26  Other (please specify)  
24  365 Dealers/Distributors/Formulators/Brokers

**2. Which of the following best describes your title? (check ONE only)**

- 27  10 **Executive/Administrator**- President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant  
28  20 **Manager/Superintendent**- Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor  
29  30 **Government Official**- Government Commissioner, Agent, Other Government Official  
30  40 **Specialist**- Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist  
31  Other Titled and Non-Titled personnel (please specify)

**3. SERVICES PERFORMED (Check ALL that apply)**

- 31  A Mowing 36  F Turf Fertilization 41  K Paving, Deck & Patio Installation  
32  B Turf Insect Control 37  G Turf Disease Control 42  L Pond/Lake Care  
33  C Tree Care 38  H Ornamental Care 43  M Landscape Installation  
34  D Turf Aeration 39  I Landscape/Golf Design 44  N Snow Removal  
35  E Irrigation Services 40  J Turf Weed Control 45  O Other (please specify)

**4a. Do you specify, purchase or influence the selection of landscape products?**  Yes  No

**4b. If yes, check which products you buy or specify: (check ALL that apply)**

- 46  1 Aerators 56  11 Mowers (reel/rotary)  
47  2 Blowers 57  12 Snow Removal Equipment  
48  3 Chain Saws 58  13 Sprayers  
49  4 Chipper-Shredders 59  14 Spreaders  
50  5 De-icers 60  15 Sweepers  
51  6 Fertilizers 61  16 Tractors  
52  7 Fungicides 62  17 Truck Trailers/Attachments  
53  8 Herbicides 63  18 Trucks  
54  9 Insecticides 64  19 Turfseed  
55  10 Line Trimmers 65  20 Utility Vehicles

**5. Do you have a modem?**  Yes  No

**6. Do you subscribe to an on-line service?**  Yes  No

**7. Is CD-ROM available in your workplace?**  Yes  No

101	119	137	155	173	191	209	227	245	263	281	299
102	120	138	156	174	192	210	228	246	264	282	300
103	121	139	157	175	193	211	229	247	265	283	301
104	122	140	158	176	194	212	230	248	266	284	302
105	123	141	159	177	195	213	231	249	267	285	303
106	124	142	160	178	196	214	232	250	268	286	304
107	125	143	161	179	197	215	233	251	269	287	305
108	126	144	162	180	198	216	234	252	270	288	306
109	127	145	163	181	199	217	235	253	271	289	307
110	128	146	164	182	200	218	236	254	272	290	308
111	129	147	165	183	201	219	237	255	273	291	309
112	130	148	166	184	202	220	238	256	274	292	310
113	131	149	167	185	203	221	239	257	275	293	311
114	132	150	168	186	204	222	240	258	276	294	312
115	133	151	169	187	205	223	241	259	277	295	313
116	134	152	170	188	206	224	242	260	278	296	314
117	135	153	171	189	207	225	243	261	279	297	315
118	136	154	172	190	208	226	244	262	280	298	316

Gary D. Curl has been named business manager for **American Cyanamid's** Turf and Ornamental Products Group. Curl had held the post of senior marketing manager at the company since 1994. As business manager, Curl handles sales and marketing responsibilities for the green industry's professional lawn care and golf course markets.

Flowtronex PSI of Dallas will purchase **Commercial Pump** of Swanton, Ohio. Flowtronex is the world's largest maker of golf course pumping systems with the industry's largest sales and service network. Commercial Pump will retain its name and personnel. Dave Brockway, president of Flowtronex PSI, says the buy will improve the company's service to golf

courses, particularly those in the Midwest.

**R.F. Morse & Son, Inc.**, New England supplier of seed, fertilizer, chemicals and power equipment, has acquired **Earth Works, Inc.**, the soil restoration specialists based in Old Greenwich, Ct. Richard Canning, president of RFM says the buy will help Morse expand operations within the golf course market in New York and New Jersey with soil restoration, custom overseeding, Hydroject aeration, fertilization and other turf management services.

**Pursell Industries, Inc.** and **Pursell Technologies, Inc.** were co-hosts and sponsors of the first Pursell Cup Charity Golf Challenge at Shoal Creek

Country Club, Birmingham, AL. The event raised \$20,000 in support of charitable efforts related to juvenile diabetes.

**Seed Research of Oregon, Inc.** now has a Web Site. Their site, [www.peak.org/~sroseed](http://www.peak.org/~sroseed), includes information on company research; turfgrass varieties; information on endophytes; and a list of SRO product distributors. The company also offers information on how to obtain the *Seed Research Seed Specification Manual, Golf Courses of North America*.

Also on the web is **Terra Industries**. The address is: [www.terraindustries.com](http://www.terraindustries.com). "Our initial purpose is to provide our customers easy access to product information," says

Web Site Manager, Jeff Keiser. "Ultimately, we anticipate our site will handle order entry and product tracking, and link other information sources useful to our customers." Terra produces and markets nitrogen fertilizer, control products and seed.

By calling up **Reading Body's** web site—[www.readingbody.com](http://www.readingbody.com)—truck equipment specifiers/buyers have immediate access to a multitude of truck equipment options.

Vermeer joined the information superhighway. Use your computer to access [www.vermeer.com](http://www.vermeer.com) to get to **Vermeer Manufacturing's** latest attraction on its web site, *Vermeer at Work*, a collection of field story summaries detailing Vermeer equipment getting the job done.

The latest edition of *Walker Talk* is on **Walker's web site** ([www.walkermowers.com](http://www.walkermowers.com)), along with product information and a section for inquiries about local distributors and dealers of Walker mowers.

**Agro-Tech 2000** has merged with Organica, Inc., Great Neck, NY. Agro-Tech 2000 develops and markets environmentally-friendly products for golf courses, sports turf and landscapers. Organica is a biotechnology company. Agro-Tech 2000 will retain its name. "The difference for our customers is that now a wider range of more effective natural products will be available," said Peter van Drumpt, CEO of Agro-Tech 2000.

## Info center

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**COMPOST MARKETING KNOW-HOW...** *Winning the Organics Game: The Compost Marketer's Handbook*, contains more than 250 pages of data and real-life examples related to marketing organic products in bag and bulk forms. Topics covered include: retail markets; sports turf markets; agricultural markets; and sales management. The book is authored by Rodney W. Tyler, former vice-president and current marketing committee member of the Composting Council. The book sells for \$59.95. To order, call ASHS Press at (703) 836-2418; fax orders are taken at (703) 836-6838.

**EROSION INSIGHTS...** *The Erosion Discussion* newsletter is a new technical publication from North American Green to professionals with erosion and sediment control concerns. The newsletter provides insight into industry standardization, regulation and advancements in materials and technologies. A free subscription can be yours by calling the North American Green Technical Services department at (800) 772-2040.

**PLANT HEALTH CARE CATALOG...** Plant Health Care, Inc. offers a free 12-page brochure on products essential to the 'plant health care' approach, including mycorrhizal fungi, beneficial bacteria, natural soil conditioners and time-release water-absorbing gels. The catalog also provides information and technical information on the natural systems approach to plant health that is reported to help plants live longer at lower maintenance levels. To order, call (800) 421-9051.

# Events

## FEBRUARY

**5-7: Turfgrass Producers Int'l Midwinter Conference**, Savannah Marriott Riverfront, Savannah, Ga.; Tom Ford, (847) 705-9898; (847) 705-8347.

**6-7: Northern California Turf & Landscape Council**, Santa Clara Convention Center, Santa Clara, Calif.; Phil Reiker, (510) 505-9600.

**6-7: Northern California Turf and Landscape Council Expo**; (510) 505-9600; (510) 505-9609.

**6-9: Association of Professional Landscape Designers Winter Conference**, St. Petersburg Beach, Fla.; Jack Lagershausen, (312) 201-0101; (312) 2010214.

**10-12: GCSAA Golf Course Conference & Show**, Las Vegas Convention Center, Las Vegas, Nev.; Rebecca Spriggs, (800) 472-7878.

**11-12: Pa. Nurserymen & Allied Industries Conference**, Hershey Lodge and Convention Center, Hershey, Pa.; Pat Stroble, (717) 238-1673.

**12-13: "ALCA University" workshop, managing front-line employee performance**, Hinds Community College, Raymond, MS, sponsored by Hinds Community College, Mississippi Nurserymen's Association and ALCA. Call ALCA at (800) 395-2522.

**13: PLCAA Workshop, "Heads-Up Training—How to Teach in the**

**Workplace,"** featuring practical teaching tips and techniques that you can implement on the job immediately; New Brunswick, N.J. For a brochure, contact PLCAA at 1000 Johnson Ferry Rd. NE, Suite C-1135, Marietta, GA 30068; (800) 445-3466.

**16-18: Ohio Tree Care Conference & Trade Show**, Worthington, Ohio. Sponsored by the Ohio chapter of the ISA. Call (614) 433-0045.

**16-19: ALCA Executive Forum**, Acapulco, Mexico. Call ALCA at (800) 395-2522.

**17: ALCA University workshop, managing front-line employee performance**, The Holiday Inn West, Hilliard, Ohio, sponsored by Ohio Nursery and Landscape Association, Ohio Landscapers Association and ALCA. Call ALCA at (800) 395-2522.

**18-19: OSU Professional Lawn Care Short Course** Holiday Inn on the Lane, Columbus, Ohio. Phone Barbara Bloetscher (614) 292-4230.

**19-22: Outdoor Power Equipment Distributors Assn. Meeting**, Sheraton El Conquistado Resort, Tucson, Ariz. For reservations (800) 325-7832.

**21-22: ALCA Masters in Management**, San Francisco. Call ALCA at (800) 395-2522.

**22-March 2: Southern Spring Show**, Charlotte

Merchandise Mart, Charlotte, NC. Call (704) 376-6594.

**24-25: Turf and Grounds Exposition**, Holiday Inn Suffern, Suffern, NY. Contact New York State Turfgrass Association (518) 783-1229.

**25-26: Southern Illinois Grounds Maintenance School**, Gateway Convention Center, Collinsville, IL. Contact Ron Cornwell (618) 692-9434.

**25-28: International Erosion Control Conference and Trade Exposition** Nashville, TN. Call International Erosion Control Association (800) 455-4322 or (970) 879-3010; E-mail: [ecinfo@ieca.org](mailto:ecinfo@ieca.org).

**25-27: Athletic Field Construction & Maintenance**, Rutgers University, New Brunswick, NJ. Phone (908) 932-9271.

**25-27: Western PA Turf Conference & Trade Show**, Pittsburgh Expo-Mart/Radisson Hotel, Monroeville, Pa. (412) 837-1402 or (814) 863-3475.

**26: New Jersey Landscape '97**, Meadowlands Exposition Center, Secaucus, NJ. Call Skip Powers (201) 664-6310.

Holiday Inn Sun Spree Resort, Asheville, NC. Contact the Turfgrass Council of NC at (910) 695-1333.

**5-9: FloralScape '97**, Cleveland (Ohio) Convention Center. Sponsored by the Cleveland Botanical Garden. Call Ann Fairhurst-Stephens, (216) 721-1695.

**7-9: The Tampa Spring Expo**, Florida State Fairgrounds, Sheraton Tampa East. Call the Tampa Bay Wholesale Growers Association, (813) 960-1457.

**9: Arborist Field Day & Jamboree** Florida State Fairgrounds (part of the Tampa Spring Expo). Call (813) 960-1457.

**7-9: Capital District Garden & Flower Show** Knickerbocker Arena, Albany, NY. Call (518) 356-6410 ext. 418 or (518) 786-1529.

**8-16: Chicago Flower & Garden Show** Navy Pier on Chicago's lakefront. For show information call (312) 321-0077.

**9: Arborist Field Day & Jamboree** Florida State Fairgrounds (during Tampa Spring Expo). Call (813) 960-1457.

**12-13: Reinders 13th Turf Conference** Waukesha Expo Center, Waukesha, Wis. Contact Ed Devinger, Reinders Inc., (414) 786-3301 or (800) 785-3301. **LM**

## MARCH

**3: Michigan Forestry & Park Association Winter Meeting**, Holiday Inn South Convention Center, Lansing, Mich. Phone (517) 482-5530 or fax (517) 482-5536.

**4: Turfgrass Managers of Western North Carolina Conference**, Great Smokies

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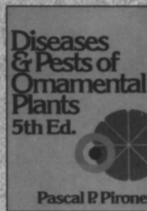


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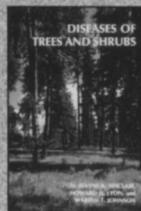
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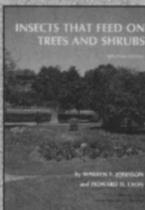
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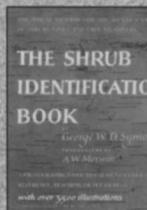
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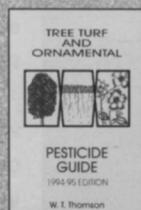
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**LANDSCAPE MANAGEMENT**

### Stihl blower more powerful; handy attachments

Stihl's BG 75 blower/vacuum is larger and more powerful than its predecessor. It has a 1.55 cubic inch (25.4 cc) engine that goes from zero to 134 mph without breaking a sweat. It produces an air flow rate of 377 cubic feet per minute yet it weighs just 9.8 lbs. Special features: electronic ignition, ElastoStart shock absorbing handle and an extra large fuel tank.

Options include a large-capacity Vacuum Kit and a Gutter Kit using a series of plastic tubes to extend the blower's reach more than 10 feet.

Contact Stihl Inc. at (804) 486-9100, and mention **LANDSCAPE MANAGEMENT**, or

Circle No. 292



### Riverdale's granular fungicide ready for action

Patchwork 0.78% Granular Fungicide is available from Riverdale. It is labelled for the preventive treatment of Necrotic Ring Spot, Summer Patch, Fusarium Blight, Take-



All-Patch, and Spring Dead Spot. It is cleared for use on golf courses (including greens and tees), parks, athletic fields, sod farms and similar commercial and residential areas. The product contains Rubigan.

Learn more about Patchwork, available in 20-lb. bags, by calling Riverdale Chemical Company (800) 345-3330 or (708) 754-3330, or

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### Vermeer's wireless control adds versatility



Vermeer Manufacturing Company offers wireless remote control for its stump cutter line. The radio remote control system option provides the operator more flexibility when positioning the machine in tight areas, and freedom of movement in an operating range of up to 100 feet from the machine. Currently available on the SC 1102 and SC 502 gearbox-driven stump cutter with Vermeer's Auto Sweep feature.

Powered by a common 9-volt battery, the device, weighting 3 lbs., will control the rate of the direction of the stump cutters tongue, moving the cutter wheel in and out of stumps. It also runs the up/down wheel positioning mode, and the swing of the cutter wheel in its sweep pattern. It's equipped with an emergency stop control.

Call Vermeer toll free at (888) 837-8337 and tell them you read about its remote control in LM or,

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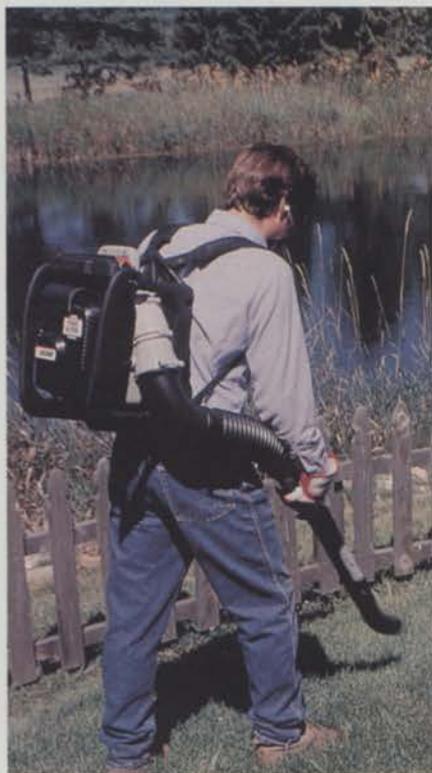
### Plant Saver gets plants off to strong start

Plant Health Care, Inc.'s Mycor Plant Saver mixed into the soil, ensures better survival and growth of new plantings by increasing feeder root growth and function. It can be used on all perennials, shrubs, vines and landscape plants. It is particularly helpful for new and existing plants grown in landscapes, urban environments, and other turf sites with drought conditions and compacted soils.

Mycor Plant Saver is a granular formulation that contains a blend of slow-release fertilizer, chelated micronutrients, organic proteins, humic acids, nitrogen-fixing/phosphorus-solubilizing bacteria and superior strains of endo- and ectomycorrhizal fungi.

For more information or to request PHC's catalogue, "Green for Life: A Survival Guide," call (800) 421-9051 and tell them **LANDSCAPE MANAGEMENT** informed you, or

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## Less noise from two-stroke blower

Echo reports its blowers have substantially reduced dBA ratings for much quieter operation.

The company calls its new PB-46LN "the quietest two-stroke blower on the market today. It meets or exceeds virtually all current noise standards without sacrificing performance."

Features include:

- ▶ Echo commercial-duty, 44.0-cc, dual-piston ring, engine with Pro-Fire electronic ignition and purge-pump equipped carburetor for fast, easy starts and steady power flow.

- ▶ Fully adjustable hip-throttle assembly with cruise control is designed in for improved control and superior user comfort and durability.

- ▶ 65 dBA at 50 feet, which is a 50 percent reduction over the preceding model, the PB-4600.

For more information, contact Echo at (847) 540-8400, and be sure to say you read it here, or

Circle No. 296

## New blower 30 percent stronger

The new 11-hp commercial blower from Little Wonder makes quick work of clean-up jobs. The fan and fan housing have been enlarged to increase air flow, and the discharge chute has been widened to maximize performance.

A 10-inch pneumatic front wheel and two 10-inch pneumatic rear wheels make it a breeze to push this unit over even the toughest terrains.

An adjustable, ergonomically-designed handle with a new, anti-vibration grip improves the balance and the feel of the machine.

To learn more about all Little Wonder machines, call the company at (215) 357-5110, and say you saw it here, or,

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SMR Direct has made two-way radio communication more affordable, with basic service that starts at \$19.95 per month for unlimited air time, and no charge for all radio equipment.

Equipment can be shipped by 2-day delivery at no charge.

For more information, call SMR at (800) 516-8993 and tell them you got the message in *LANDSCAPE MANAGEMENT*, or

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## High power and torque with this blower

The 225HBV blower from Husqvarna weighs 11.2 pounds, and has the high power and torque already included in other Husqvarna blowers.

The blower has a 25.4-cc cylinder volume, and a maximum air velocity of 128 mph.

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For more information, contact Husqvarna at (704) 597-5000 and mention *LANDSCAPE MANAGEMENT*, or

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Green for Life



Photo courtesy of D. Read

Plant Health Care

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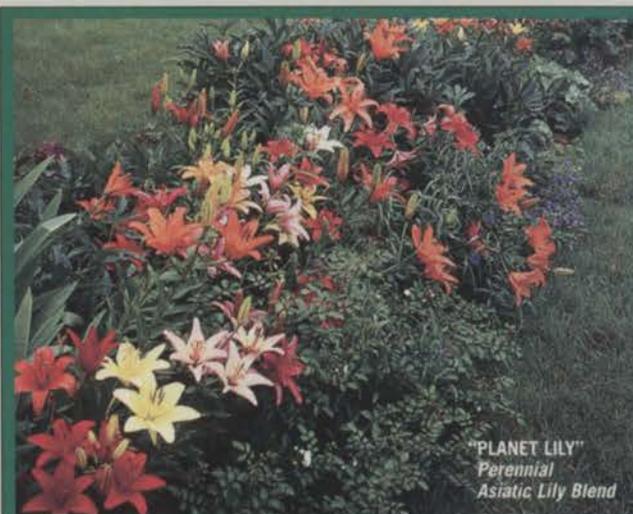
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Every month the Market Showcase offers readers of *Landscape Management* a complete and up-to-date section of the products and services you're looking for. Check it out every month, or you might miss out.

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## HELP WANTED

**Landscape Designer/Estimator/Manager**

Well established landscape design/build company seeks highly motivated, well organized self-starter to join our team effort. Individual should have a minimum 2 year degree in Ornamental Horticulture and 2 years experience in the landscape field. Must have ability to schedule and manage planting crews, design, estimate and sell projects. Competitive salary and benefit package. Send pay history and resume to:

**Green Biz Nursery & Landscaping, Inc.,**  
P.O. Box 64995, Fayetteville, NC 28306,  
or fax to (910)433-9052.

**MANAGERS SUPERVISORS CREW FOREMEN**

Scian's Landscaping, Inc., one of Southern New Jersey's largest and fastest growing landscape contractors, is currently seeking take charge, self motivated landscape professionals to join our management team. These positions require a minimum of 1-3 years supervisory experience in either grounds maintenance, landscape construction, tree removal or irrigation systems. Horticultural degree is a plus. We offer an excellent compensation program and employee benefits package commensurate with experience.

For immediate, confidential consideration, please send or fax resume to Scian's Landscaping, Inc., 444 Commerce Lane, West Berlin, NJ 08091, Attention: Jo Anne Crouch. FAX (609) 768-5236. PHONE (609) 768-5915. EOE/MF

**MANAGERS - GREEN INDUSTRY**

Senior Managers, Small Business Owners - Please apply. ENVIRONMENTAL CARE, INC., one of the largest, fastest growing national Green Industry companies is expanding in No. Calif. Bay Area market. Positions require 3-5 years proven track record in managing a business in the Green Industry. Experience in financial mgmt, people mgmt, customer service, sales needed. Person must be self motivated, energetic, creative with entrepreneurial qualities. Excellent benefits & compensation package. EOE. Send confidential resume to: Environmental Care, Inc., 825 Mabury Road, San Jose, CA 95132.

**Landscape Designer/Estimator Needed**

Well established landscape/build company seeks highly motivated, well organized, self starter to join our team effort. Must have a minimum of 3 years experience in landscape field and a knowledge of ornamental horticulture. Must have ability to communicate well, design, estimate and sell projects. Competitive salary and benefits package. Send resume to Gradco, Inc., 7341 Cahaba Valley Road, Birmingham, Alabama 35242. Attention Mike Summers.

## HELP WANTED

One of No. VA's Most Successful Landscape firms has opening for Designer/Estimator & Production Manager. Must have minimum of 2 years experience. Excellent growth opportunity and benefits package.

Call 703-352-7555

**SALES ENVIRONMENTAL CARE, INC.**

is expanding markets in No. Calif. Bay Area. Must have 3-5 years experience and strong track record in sales. Need to be articulate w/strong interpersonal and organizational skills. Knowledge of local markets and property management a plus. Excellent growth potential, full benefits. Send resume: 825 Mabury Road, San Jose, CA 95133 EOE

## MANAGEMENT

**OPPORTUNITIES AVAILABLE!**

An established Southeast-based leader in professional landscaping, maintenance and irrigation services has immediate openings for several experienced and well-qualified individuals for the following positions:

- VP/General Manager
- Sales Director
- Irrigation Manager
- Field Superintendent

Our client is looking for people who are truly committed to this business and who desire a unique opportunity to work for a company that is experiencing the kind of rapid growth that will lead to future advancement.

Interested and qualified candidates should either telephone, fax or mail their resume to: FSJ Services, Inc., GreenSearch® Division, 550 Spalding Drive NE, Atlanta, Georgia 30328. Tele. (770) 392-1771 Fax (770) 392-1772

**Grounds Maintenance and Enhancement Supervisors & Managers**

Become a part of one of Maryland and Virginia's fastest growing team of landscape professionals. Come and work for a company that recognizes quality as a daily occurrence and knows that customer satisfaction is a successful driving force.

Positions are full-time with exceptional compensation, benefits, and advancement opportunities. Mail or fax your résumé today to: Tom Davis, Bozzuto Landscaping Company, 15127 Marlboro Pike, Upper Marlboro, MD 20774, Fax No.: 301-627-7011.

Join America's leading irrigation and landscape lighting distributor, Century Rain Aid, as we continue to grow. Century is now accepting applications for branch management positions for the Philadelphia and New Jersey markets. Irrigation experience and a college education are preferred. Century offers industry competitive wage and benefit programs. Please send your resume and salary requirements to:

Century Rain Aid, 31691 Dequindre Rd.,  
Madison Heights, MI 48071, Attn: Wayne MILLER.  
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Large private lawn care co. in Buffalo N.Y. needs motivated turf expert. A 4 yr. degree and 5 years exper. is required. Training and safety background helpful. Benefit package includes mid 30's to start.

Send resume to: Funk Lawn Care,  
330 Fillmore Ave., Tonawanda, N.Y. 14150  
or contact Bill or Bob at 1-800-FUNK-LAWN

**LAWN CARE SALES**

*Would you like to "work in the sunshine"?*  
Nationally known company is looking for aggressive Sales Reps. to work in the Tampa Bay area. Great benefit pkg. Paid vacation and year round work. Base pay of 17-22K plus commission. Send resume to P.O. Box 12510, Oldsmar, FL 34667.

**LANDSCAPE management**

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## HELP WANTED

Heyser Landscaping, Inc., continuing to build on a 68 year reputation, is now hiring supervisors, forepersons, assistant forepersons, for specialty display, planting and maintenance crews in the southeastern PA, northern NJ and DE areas. Excellent wages and benefits including:

Paid holidays, vacation and sick time; health, dental, life, ST/LT disability insurance; vision and prescription drug plans; 401(k) pension plan; uniforms

Send resume and salary requirements to: Heyser Landscaping, 400 North Park Avenue, Norristown, PA 19403, or fax to (610) 630-1288

**The City of San Antonio**

is seeking an individual for the position of **City Arborist**. Responsibilities include enforcing the Tree Preservation Ordinance and supervision of professional and technical staff. Applicants must have a Bachelor's degree from an accredited university in Forestry, Arboriculture, Landscape Architecture or related field and two years experience in arboriculture, forestry, or a related field. Salary range is \$35,220 to \$52,836 annually. Interested individuals send resumes to the Human Resources Department, PO Box 839966, San Antonio, Texas 78283-3966, or fax resumes to (210) 207-4026, attention: Homer Smith. Closing Date: Open. EOE.

**Grounds Management**

DuBrow's Nurseries, Inc., a full service Horticultural corporation, has immediate openings for all levels of management. Individuals will be servicing upscale corporate and condo management clientele. Must possess a related college degree, with excellent communication skills, bilingual a plus. Competitive salary and full company benefits.

Please fax resumes to: DuBrow's, attn. Michael Branch, fax: 201-992-6050. E.O.E. M/F

## HELP WANTED

**Environmental Care, Inc.** the largest landscape maintenance company in the United States has positions available in Phoenix, Arizona. We are seeking career minded, experienced individuals to be Account Managers. Qualified individuals will be team oriented with excellent customer service skills. Benefits include medical, dental, life insurance, and 401K.

Send resume to 2902 E. Illini, Phoenix, Arizona 85040 or FAX (602) 276-8191, Attn: Bill Rademacher. EOE. Pre-employment drug/alcohol screen required.

### LANDSCAPE/IRRIGATION SUPERVISOR

Excellent opportunity to join a growing industry leader. We seek an energetic, team-oriented, and self-motivated individual with good communication and organizational skills. Ability to coordinate materials and equipment and capacity to run crews efficiently a must. Good compensation and advancement for right candidate.

Send resume or call:

**Terraforma Inc., 3780 E. Morgan Rd., Ypsilanti, Michigan 48197 (313)434-3811**

**MAINTENANCE SUPERVISORS** The Brickman Group, Ltd., one of the nation's largest and fastest growing full service landscape companies, has an immediate need in principal cities east of the Mississippi for maintenance supervisors with 2-5 years experience. Brickman seeks energetic, team oriented college graduates with proven leadership, communication and interpersonal skills. Brickman offers full-time positions, excellent advancement opportunities and exceptional compensation and benefits with an industry leader building on a 56-year tradition of uncompromising customer service. For immediate confidential consideration, please send or fax your resume with an indication of your geographic preferences and willingness to relocate to: **The Brickman Group, Ltd., Corporate Office, 375 S. Flowers Mill Road, Langhorne, PA 19047, 215-757-9630, EOE.** 2/97

**LANDSCAPE Chapel Valley Landscape Company**, Award-winning, quality-oriented landscape firm is looking ahead to spring and expansion! In anticipation of a busy "growing" season, we are seeking reliable, motivated team players to fill the following vacancies in the MD/VA/DC areas: **Foremen, Assistant Foremen, Crew Workers.** We offer excellent compensation, employee development, and benefits in a drug-free environment. EOE. Send resume or call: **HR Dept., Chapel Valley Landscape Company, PO Box 159, Woodbine, MD 21797, 301-924-5400.** 3/97

**FLORAPERSONNEL, INC.** In our second decade of performing confidential key employee searches for the landscape/horticulture industry and allied trades worldwide. Retained basis only. Candidate contact welcome, confidential, and always free. 1740 Lake Markham Road, Sanford, FL 32771. PHONE (407)320-8177. FAX (407)320-8083. 12/97

**SERVICE MANAGER** Join a fast growing company in Southwestern Connecticut. Ambitious, highly motivated individual with good communications skills, management capabilities and mechanical/equipment talent to take charge of lawn care and mowing operations. Send your resume and salary requirements to: President, P.O. Box 214, Greens Farms, CT 06436. 2/97

**Landscape Chief Estimator** Aggressive, established commercial landscape contractor searching for experienced leader knowledgeable in site development, grading operations, landscape & irrigation installation, and landscape maintenance. Computer experience mandatory; Lotus 123 release 5 or Excel preferred. Successful candidate must be professional, organized, team oriented and skilled in management. Remarkable opportunity for a career. Salary-D.O.E. Submit credentials and employment references via fax @ (702)252-7031 and mail to: **Gothic Landscaping, Inc., c/o Chief Estimating Position, 4565 West Nevso Drive, Las Vegas, Nevada 89103.** 2/97

**Landscape Installation Foremen - North Carolina** commercial landscape firm is seeking qualified personnel for Charlotte operations. 2 years experience and/or Horticulture degree. We offer competitive salary plus incentive plan, excellent benefits, and unlimited opportunities. Respond to: **HR Manager, Southern Tree & Landscape Companies, PO Box 7067, Charlotte, NC 28217. Fax (704)375-7555.** 2/97

**HELP WANTED RELOCATE TO PORTLAND, OREGON** and join our growing, full service landscape business dedicated to quality since 1964. Experienced arborists, applicators, construction and maintenance crew leaders desiring to join our team should contact our office below. Drug testing, drivers license and good driving record are required. **Tree Care Unlimited, Inc., PO Box 1566, 5600 SW Rosewood St., Lake Oswego, OR 97035, 503-635-3165 (office), 503-635-1549 (fax).** 4/97

**Great Opportunity - Operations Manager. Showcase Landscape**, a leader in Minneapolis, St. Paul has a great opportunity for the position of Operations Manager. The qualified applicant should have good organization skills, and a solid background in Grounds Management. Responsibilities include; Grounds Maintenance, Landscape, Irrigation, and Snowplowing. Solid support staff and sales staff already in place. We need a leader who is committed to customer satisfaction and is able to actively find ways to lower costs. Please send resume and salary requirements to **Showcase Landscape 7086 Quantico Lane, Maple Grove, MN 55311, or call Steve st (612)425-5296.** 2/97

**FRANCHISE SUPPORT** Join Illinois based leader in lawn and tree care franchising since 1977. Spring-Green seeks individual with green industry background to train and support franchise owners in the use of our marketing and operating systems. Qualified candidate must have college degree, be self-motivated and people-oriented. Excellent compensation package includes company car, medical, life, 401K and bonus opportunities. Fax resume to: **Franchise Support 815-436-9056.** 2/97

**BRANCH SALES MANAGER** National Lawn Equipment, Parts & Accessories Supplier expanding into the Northeast, Mid Atlantic and Southeast. Need articulate individual with retail management experience. Computer literate. Several markets available. Send resume with salary history & requirements to: **Landscapers Supply, P.O. Box 459, Spring Valley, NY 10977-0459.** 8/97

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(Please call Sales Rep to confirm dates.)

#### SEND AD COPY WITH PREPAYMENT TO:

Denise Zappola, **LANDSCAPE MANAGEMENT**, 7500 Old Oak Blvd., Cleveland, OH 44310. For more information call: 1-800-225-4569 or 216-891-3162, Fax: 216-826-2865.

# CLASSIFIEDS

## EQUIPMENT FOR SALE

**SPYDERS-** New/Used/Rebuilt. Full line of replacement parts and update kits. Kubota, Ruggieri, and Kohler engines & 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, Crystal Lake, IL 60012. (800)397-7509. FAX (815)455-7366. 12/97

## FOR SALE

**BUCKET TRUCK:** Hi Ranger 65', 57', 50'. Skyworkers 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. 12/97

Protect yourself and your applicators from granular fertilizer and pesticide dust when operating Lesco and Scott's commercial spreaders with the Applicator's Friend shield. Now only \$35.95! Riverside Gardens, Inc. 1-800-595-2774. 3/97

### Send Blind Box Replies to:

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Duluth, MN 55802-2065

(Please include box number in address)

## FRANCHISE OPPORTUNITIES

"Is Your Business Stagnate? \*Looking for better products? \*Does your business require professional marketing experience? \*Or, do you want to add lawn care to a new or existing business? Now is the time to consider a franchise with **NATURALAWN OF AMERICA**, the leader in organic-based lawn care. Due to our environmentally responsible approach, we are the fastest growing lawn care company in the U.S. For details, contact us on the Internet at [www.nl-amer.com](http://www.nl-amer.com) or call Randy Loeb, Franchise Development Manager at 800-989-5444 8/97

## SERVICES

Advertise your business on the INTERNET and find LOCAL and REGIONAL customers interested in your services. You've been hearing about it, but is your company taking advantage of it? Have us develop your own home page on our Internet Directory. Call LandscapeUSA Internet Directory Services today! (800)966-1033 <http://www.landscapeusa.com> 2/97

## WHOLESALE DISTRIBUTOR

Needed to market environmentally friendly, liquid, slow-release fertilizer products direct from manufacturer. Ken Franke, P.O. Box 123, Plato, MN 55370; 800-832-9635. 12/97

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# Grab Bag

## Back to grass: more reasons why

Dr. Richard Cayton of the New Jersey Turfgrass Association agrees that the support for artificial turf just isn't there as it once may have been.

"Grass is much more forgiving, and the economics of synthetics are frightening," says Cayton. Nor is synthetic turf "maintenance free," as many have been led to believe.

"Maintenance [of artificial turf] is just as high," Cayton says, "and it has to be replaced every six to 10 years. And there are non-hit related injuries such as cleats grabbing in the surface."

## Pesticides in perspective

A part per million is equal to: one ounce of salt in 62,500 pounds of sugar; or, one inch in 16 miles; one second in 16 days.

1 part per trillion amounts to a pinch of salt in 10,000 tons of potato chips or one inch in 16,000,000 miles.

## How wet is it?

A contest by the *Oregon Statesman Journal* asked readers to answer that very question, during a period of heavy rain. Here are three of the best one-liners:

It's so wet that...  
"...our alphabet runs from H<sub>2</sub>O."  
"...my sponge cake is leaking."  
"...I saw a catfish using a litter box."

COURTESY LARRY KASSELL

## Trooper uses entomology on the job

Name: Jack Webb.

Occupation: Delaware state trooper.

Specialty: Forensic entomology.

Those are the facts, ma'am. And Webb, an entomologist from the University of Delaware, has made forensic entomology—a little known branch of criminology—his crime fighting niche. Webb has catalogued the types and progression of insects that mark corpse decomposition in the mid-Atlantic area of the U.S.

Pig carcasses were left to decompose on the university research farm, and Webb returned to the scene every so often to capture nesting insects and catalog them as to species, cycle of life and time of collection since the pig's death. Webb has five boxes of insects, from flies the size of pinpoints to large beetles. The catalog of insects has helped solve homicides in Delaware and surrounding states.

"I knew I always wanted to do something positive with my life," says Webb.

"Troopers are here to help and to protect."

PHOTO BY CHRISTINA MUZZI



## Charlie's description of a customer

Charlie Racusin, top man at Environmental Landscape Services, Inc., Houston, donned a chef's outfit at the 1996 ALCA Conference to describe the "recipe" for success. The main ingredients? Quality of service and high-touch service, said Charlie. He added the following description of today's customer:

"I am much more demanding than I was years ago. I've grown accustomed to better things. My needs are more complex. I'm perfectly willing to spend more money with you; I have more money to spend, but I insist on good service. I am above all, a human being and I'm sensitive, especially when I'm spending my money. . . . My ego needs some nourishment, including a friendly, personal greeting from you. It's important that you recognize my importance, that you appreciate my business."



Grab Bag features brief observations and prognostications throughout the green industry. If you have an unusual photo or comment you'd like to share with us, please send it in...

# New Turf Champ Zero Turns Deliver One-Two Punch To Your Competitors.



Mr. Contractor, we know that top appearance and competitive pricing are the one-two punch you want to deliver to your competitors. Because top appearance and competitive pricing are what your customers want. You get both with Bush Hog's new Turf Champ Zero Turn Mowers.

**One** - The best appearance delivered by any Zero Turns.

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Check out these features:

- Air-cooled 18 HP Briggs & Stratton and 22 HP Kohler Command engines
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- 48-, 52- and 61-inch wide decks
- 10-gauge steel decks with 7-gauge stiffeners
- Standard anti-scalp rollers
- 90-degree deck tilt for easy maintenance
- Hydraulically-dampened steering levers
- Adjustable seat
- Large footrests

Give your competitors the one-two punch. Call or write for free literature today.



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**Penncross:  
Tried and True**

Louis Miller, Supt., Louisville CC, Louisville, KY

# "I've Specified Penncross For 33 Years. Why Mess With Success?"

"I've been in business 33 years as a golf course superintendent, contractor, consultant and golf course owner. Of the nearly 500 greens I've built or rebuilt, 95% have been planted with Penncross creeping bentgrass. The customers specified PennLinks on the others.

As a certified golf course builder, my company is currently working on six courses in three states, and all will have Penncross greens. Why? Because I believe Penncross has already been where all of the other bents are trying to go. Penncross can take the extremes of heat, humidity and cold we experience here, plus the daily wear

and tear of spikes, ball marks and divots. But the real value is in its rapid establishment. In today's economy, a golf course must generate revenue quickly to recoup land, construction and startup expenses. I can seed Penncross anytime the soil is warm enough to germinate and have green grass in five days. We're then mowing the greens in 13 to 16 days. This pleases both investors and owners.

We mow Penncross between 5/16" and 1/8", and this is fast enough to please the most demanding golfer we get.

I plan to specify Penncross for years to come. Why would anyone mess with success?"

Penncross is available from your dealer in the distinctive burlap bag or 25 pound 'Penn Pail'. Order yours today.



**Tee-2-Green  
Corp.**

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