

THE VOICE OF THE GREEN INDUSTRY

# LANDSCAPE *management*

JANUARY 1996 • \$4

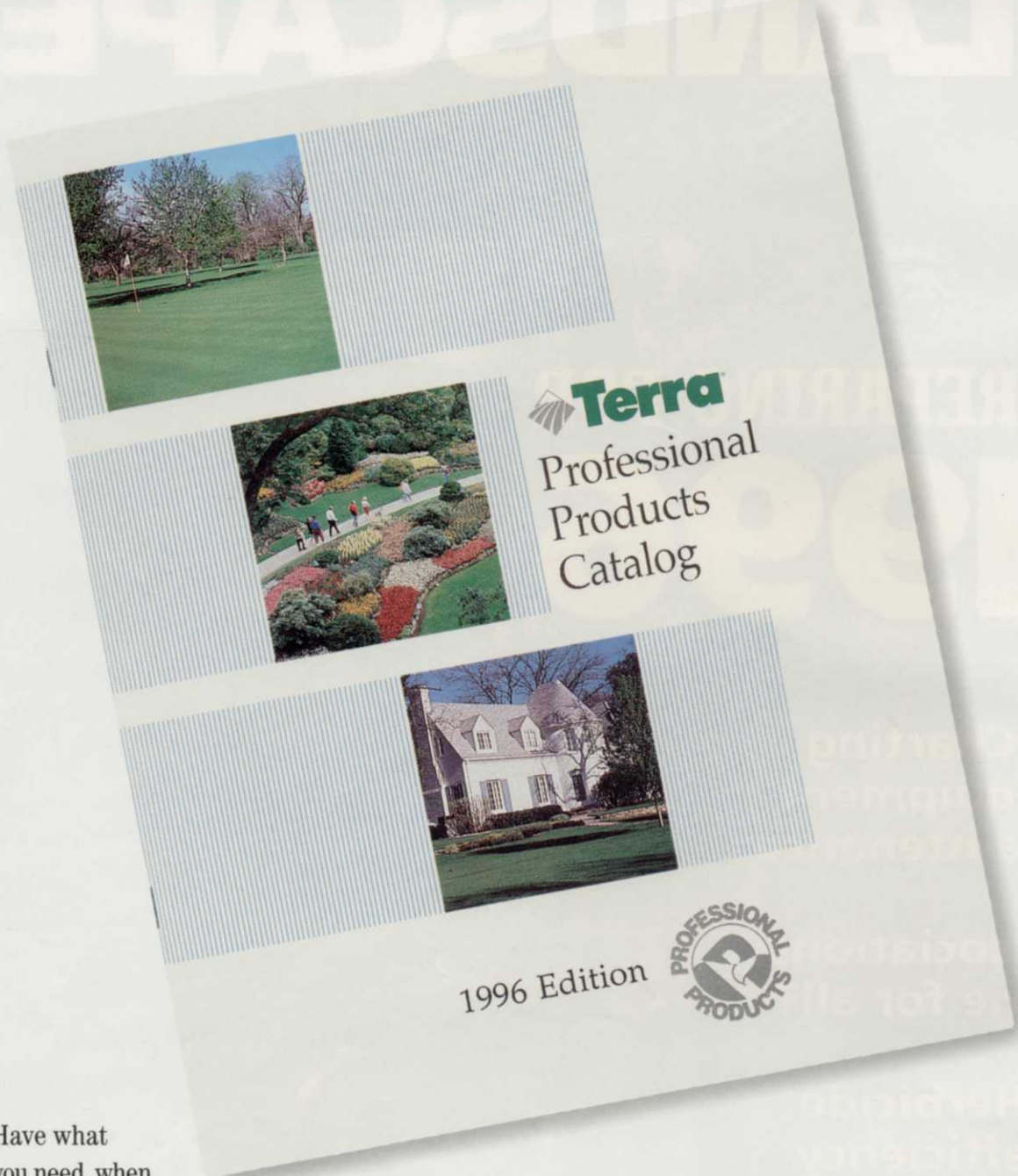
## PREPARING FOR 1996

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**D**on Wahl speaks out of both sides of his mouth. But he can afford to—indeed, it's his duty to. You see, he's a reporter for WFAA-TV, the ABC affiliate in Fort Worth, Tex.

Wahl, however, is not just *any* reporter. He's the station's *environmental* reporter, and he gave a generally balanced report to members of the Turf & Ornamental Communicators Association during a break in the Green Industry Expo two months ago. Which is to say, the news is good and the news is bad for the green industry.

**The good news:** "I'm encouraged by the efforts of [green] industry leaders," Wahl said. "Chemicals and fertilizers are keys to the way we live, in many ways."

**The bad news:** "It's a fact that pesticides and fertilizers are showing up in wastewater. And it would be a mistake to assume that all the information is misguided, uninformed and detrimental to your industry."

But the ongoing controversy over pesticides in

our environment has really evolved past whether they are good or bad.

Most educated people will admit to the fact that pesticides, used in moderate amounts, are good. They kill unwanted agricultural and household pests, and—in the process—they give us higher agricultural yields, safer homes, and prettier yards and parks.

However, most educated people will also admit that over-use of pesticides can result in groundwater contamination; ozone layer depletion; beneficial insect deaths; and irritating skin rashes, flu-like symptoms and other acute chemical responses in humans.

"But people's ideas are changing," Wahl continued. "People are developing different perceptions about their yards [see page xx]. There is a

trend nationally against environmental reporting."

Once upon a time, environmental reporters were all the rage at local television stations. Flick the remote once and you got Jason Pompadour reporting from the local chemical waste disposal site. Flick it again and you saw Jane Bouffant interviewing some suburban housewife who wouldn't stop bawling because the smell of fertilizers emanating from the neighbor's yard were making her throw up.

Nowadays, though, when you turn on the television, you're more likely to see "Par for the Course," a beautifully-produced ESPN program sponsored by the Golf Course Superintendents Association of America that "establishes superintendents as leaders in the environmental movement," according to Scott Smith.

Smith, the GCSAA's director of media relations and video services, also spoke to TOCA members. He told us that his association is spending \$1 million this year on public relations, and—with the addition of government relations lawyers—"is now in the lobbying business."

This, of course, is fine. But I repeat, for effect: the debate over chemicals in the environment has evolved beyond the notion of good versus evil. While keeping one eye on the short term and pesticides' impact on your lawn care company or golf course, you must also keep one eye on the long term and their impact on the environment.

"The important thing to remember is that you are an advocate for using products," stated Wahl. "While you are trying to provide more information, you might find that a cooperative spirit is very useful. [So] don't look at government regulations as the enemy. In the environmental arena, it's what happens down the road, long term, that's important."

I couldn't have said it any better myself.

## The chemical controversy evolves past good vs. bad



*Jerry Roche*

JERRY ROCHE  
Editor-in-Chief

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# LANDSCAPE *management*



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RON HALL



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ED & AARON WANDTKE



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JEFF LEFTON

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**EDITORIAL STAFF**

Fax (216) 891-2675

E-mail 75553.502@compuserve.com

Jerry Roche **Editor-in-Chief** (216) 826-2830  
 Terry McIver **Managing Editor** (216) 891-2709  
 Ron Hall **Senior Editor** (216) 891-2636  
 Lisa Bodnar **Graphic Designer** (216) 891-3101  
 Maureen Hrehocik **Group Editor** (216) 826-2829  
 Lisa Lehman **Art Director** (216) 891-2785

**READER ADVISORY PANEL**

Joe Alonzi **Westchester Country Club** Rye, N.Y.  
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**BUSINESS STAFF**

John D. Payne **Publisher** (216) 891-2786  
 Leslie Montgomery **Administrative Coordinator** (216) 826-2856  
 Debi Harner **Production Director** (218) 723-9325  
 Rosy Bradley **Senior Production Manager** (218) 723-9352  
 Judy Miducki **Production Manager** (218) 723-9281  
 Alex DeBarr **Group Publisher** (216) 891-2789

**ADVERTISING OFFICES**

**Headquarters** 7500 Old Oak Blvd.  
 Cleveland, OH 44130-3369  
 (216) 243-8100 Fax: (216) 891-2675

John D. Payne **Publisher** (216) 891-2786  
 Tom Galligan **National Sales Manager**  
 3901 52nd Ave.  
 Kenosha, WI 53144-1830  
 (414) 653-9523 Fax: (414) 653-9524

Bob Mierow **Western Sales Manager**  
 1333 N.W. Norcross  
 Seattle, WA 98177-5235  
 (206) 367-5248 Fax: (206) 367-5367

Dan Hoke **Classified Ad Manager** (216) 891-2672

**MARKETING SERVICES**

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**President & CEO** Gary R. Ingersoll  
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**Turf and Ornamental Communicators Association**

P.O. Box 156, New Prague, MN 56071  
 (612) 758-5811

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## Quack, quack, quack

*Is there a selective herbicide that removes quackgrass and nutsedge in ornamental plantings? These aggressive weeds are giving us problems.*

—OHIO

You can use Vantage herbicide to manage quackgrass. It is a selective broad-spectrum post-emergence herbicide for use on annual and perennial grassy weeds in turf and ornamentals. It has very limited use for turf; therefore, follow label specifications for best results.

Vantage does not control nutsedge. In your area, yellow nutsedge is most common. To manage this, you may use a herbicide such as Basagran. For better results, treat nutsedge plants when they are small and young.

Because of the underground bulbs produced by nutsedge, they are difficult to manage in one season. Reports indicate that it could take two to five years. Follow good cultural practices to help minimize weed problems.

## Timing fall fertility

*When is the best time to apply fertilizer in fall? What are the differences between a quick-release source of nitrogen such as urea, or a slow-release such as sulfur-coated urea? Will there be any problems with these products leaching into the soil or into drinking water?*

—MICHIGAN

In the fall, when air temperature is below 50° F, respiration and growth in turfgrass tillers

slows down. Photosynthesis continues to produce sugar, which accumulates and is translocated to the crown and roots. Roots will continue to grow until the ground freezes.

Nitrogen fertilizer applied at this time will help to prolong photosynthesis by stimulating chlorophyll production. Turfgrass remains green longer into the dormant season and greens up earlier in the spring. Root growth also is stimulated with nitrogen applied at this time.

Late-fall fertilization occurs at about the time of the last mowing and should not be confused with dormant fertilization which occurs after the leaf tissue turns brown. For fall fertilization, water soluble, quick-release sources of nitrogen—such as urea—are the preferred products. They are not temperature dependent. You can also use slow-release products such as isobutylidene diurea (IBDU) or sulfur-coated (SCU). IBDU is not temperature-dependent, while the sulfur coating in SCU is rather temperature-dependent. Natural organic fertilizers are the least-preferred for fall fertilization because they require microbial degradation, a temperature-dependent process.

The likelihood of nitrogen leaching out of a root zone of clay or other heavy soils is remote. However, nitrate leaching can occur on sandy soils although in one experiment on Long Island, NY, fertilized plots produced no more leachate than unfertilized plots. It may

be advisable to use slow-release fertilizers on sandy soils until additional research provides clarification of the fate of nitrogen in different soil textures.

*Where and how can we get current information and facts about pesticides used in turf and ornamental plant pest management?*

—PENNSYLVANIA

## Where to find info

Kathy Zahirsky, director of Environmental and Regulatory Programs at the The Davey Tree Expert Company, referenced the following sources:

- search local libraries to find reputable horticulture or green industry magazines; also look for *Agricultural Chemical News*;

- land-grant university libraries carry university extension service publications.

- manufacturers: pesticide labels and material safety data sheets (MSDS); research data; technical and/or promotional literature.

- state and federal agencies, such as EPA; state departments of agriculture; the National Pesticide Telecommunication Network (NPTN); Department of Transportation; Cooperative Extension Service;

- national/local industry associations: ALCA; PGMS; PLCAA;

- computer access: World-Wide Web (through EPA); CompuServ's Knowledge Index Program); Exttoxnet, network services.

- private consulting firms.



**BALAKRISHNA RAO**

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

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## Bankruptcy filings are on the decline

The Administrative Office for U.S. Courts reports that all bankruptcy filings for 1994 were down 6.6 percent compared to 1993. Total filings were 837,797 compared to 897,251 in 1993. Business bankruptcies decreased 16.1 percent, and non-business filings decreased 5.9 percent.

Filings in eight states accounted for 53.1 percent of the business filings, led by

California's 12,144. Other top states: New York (3,593), Texas (3,395), Florida (2,248), Minnesota (2,025), Pennsylvania (1,956), Illinois (1,861), Georgia (1,717).

California, incidentally, also led in non-business bankruptcy filings with 134,227, nearly three times that of the second-highest state, New York with 43,980.

## Keeping pace with inflation?

To find out if your personal income has kept up with inflation, multiply your earnings in any year by the multiplier for that year. If your current earnings are less than the total, your "real" income has declined.

1960 .. 5.01	1970 .. 3.82	1980 .. 1.80	1990 .. 1.13
1961 ... 4.96	1971 ... 3.66	1981 ... 1.63	1991 ... 1.09
1962 ... 4.91	1972 ... 3.55	1982 ... 1.54	1992 ... 1.06
1963 ... 4.85	1973 ... 3.34	1983 ... 1.49	1993 ... 1.03
1964 ... 4.78	1974 ... 3.01	1984 ... 1.43	1994 ... 1.00
1965 ... 4.71	1975 ... 2.76	1985 ... 1.38	
1966 ... 4.58	1976 ... 2.61	1986 ... 1.35	
1967 ... 4.44	1977 ... 2.45	1987 ... 1.31	
1968 ... 4.26	1978 ... 2.27	1988 ... 1.25	
1969 ... 4.04	1979 ... 2.04	1989 ... 1.20	

## Pay her, hug him

Working women want more money, while men yearn for security, according to a telephone poll of workers conducted by ICR Survey Research.

Sixty-one percent of women vs. 54 percent of men would opt for higher salary over increased job security. The female focus on pay is entirely logical: they make 28 percent less, on average, than men.

Only about 40 percent of women, compared with 50 percent of men, think they are paid what they're worth.

Nearly 56 percent of workers with household incomes of \$50,000 or more are satisfied with their pay, as opposed to 42 percent of those with incomes of \$40,000 a year or less, the survey notes.

## College grads most likely to buy tree care

Seventy-three percent of all tree care services are purchased by college-educated consumers, according to statistics from the National Gardening Association. The average college-educated consumer spends about \$400 per year on such services.

In 1994, a survey by the Gallup Organization noted, 4.9 million U.S. households purchased professional tree care services. Average spent was \$337. More survey highlights, courtesy of the National Arborist Association, in its "NAA Reporter:"

	Client	Average spent	% total sales
BY SEX	Male	\$274	40
	Female	\$384	60
BY AGE	18-29	\$347	12
	30-49	\$394	45
	50+	\$296	43
BY EDUCATION	college	\$400	73
	H.S.	\$248	26
	grade school	\$40	1
BY OCCUPATION	professional	\$344	29
	business	\$359	18
	clerical/sales	\$223	4
	manual labor	\$384	15
	farmer	\$0	0
	retired	\$204	13
	non-labor	\$200	1
BY MARITAL STATUS	undesignated	\$1,343	19
	married, no children	\$277	37
	married, children	\$505	41
	single	\$286	14
BY INCOME	sep/div/wid	\$214	8
	\$99,999+	\$404	9
	\$75K-\$100K	\$549	6
	\$50K-\$75K	\$340	17
	\$40K-\$49K	\$240	8
	\$30K-\$39K	\$435	24
	\$20K-\$29K	\$264	8
	\$15K-\$19K	\$192	7
under \$15K	\$135	4	
undesignated	\$397	17	



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# A million snow throwers, a million reasons for safety

Shipments of snow throwers have topped the one million mark for model year 1995, meaning more chances for professional landscape maintenance contractors who "throw snow" to have an accident.

Here are some important safety recommendations made by the Outdoor Power Equipment Institute for all operators of snow throwers:

- Read your owner's manual thoroughly and understand all of the recommended safety procedures before using it the first time.
- Keep the area of operation clear of all persons, particularly small children and pets.
- Clear the area of doormats, sleds, boards, wires and other debris. Snow can sometimes hide objects that might clog the chute or cause other damage.
- Never throw snow toward people or cars, and never allow anyone in front of your snow thrower.
- Always turn the machine off and wait for all moving parts to come to a complete stop, if you have to repair the machine, remove an object or unclog built-up snow from the auger blades or chute. Then disconnect the spark plug wire.
- Use a stick to unclog the snow thrower.
- Keep hands and feet

away from all moving parts.

- Dress properly for the job, including footwear that will improve footing on slippery surfaces. Avoid loose-fitting clothing that can get caught in moving parts. Be

careful of extra-long hair.

- Use non-spill gas containers with spouts. If possible, fill the tank while the engine is cold.
- Do not clear snow across the face of slopes. Use ex-

treme caution when changing direction on slopes. Do not attempt to clear very steep slopes.

- Never operate a snow thrower without good visibility or light.
- Keep a firm hold on the handles.
- Walk, don't run.

## Well-maintained yards increase in importance

More Americans enjoyed the multiple benefits of a well-maintained lawn and landscape in 1994 than in 1993, according to a survey by the Gallup Organization for the Associated Landscape Contractors of America (ALCA) and the Professional Lawn Care Association of America (PLCAA).

Homeowners that participated in the sur-

vey were more inclined to view a yard as a safe play area for children in 1994 than in 1993. They are also more interested in a yard that beautifies the neighborhood and having a comfortable place to entertain, work or visit, the survey noted.

Complete results of the survey:

### BENEFITS OF A PROPERTY WITH A WELL-MAINTAINED LAWN AND LANDSCAPE

	1993	1994	% change
1. A property that helps beautify the neighborhood	45.0%	60.7%	+15.7%
2. A place of beauty and relaxation for the family, employees or visitors	38.6%	53.8%	+6.7%
3. A property that reflects positively on its owner	38.4%	50.3%	+11.9%
4. A property that has increased real estate value	35.3%	48.1%	+11.9%
5. A comfortable place to entertain, work or visit	32.5%	48.1%	+15.6%
6. A property that provides a safe, high-quality play area for children	26.7%	45.4%	+18.7%
7. A place that provides an exercise area for pets	12.7%	22.5%	+9.8%
8. A property that helps purify the air	12.4%	24.8%	+12.4%
9. A property that helps cool the air	12.2%	20.7%	+8.5%
10. An environmentally-friendly property that filters water that drains into the ground	12.1%	22.8%	+10.7%
11. Other	1.2%	3.5%	+2.3%

## Field managers need bigger budgets, says STMA's Trusty

The athletic turf industry is operating at a time of intense public demand for quality sports facilities.

Now if only public demand would be matched by adequate funding.

As new executive director of the Sports Turf Managers Association, Steve Trusty wants to change the perception that an athletic field manager can come up with pro-quality results on bush league budgets.

"Some of the people that see the professional fields on TV expect their own high school or parks and recreation fields to look the same way," observes Trusty, "but, in many cases, they don't want to provide any funds to do that with."

"One of the things we want to do is help educate not only the sports turf managers around the country but the people they have to depend on for the funds to do the job they could do if they had some budgets to work with."

Trusty's concern for STMA includes plans to establish a fraternity of sorts with professional baseball, as a way to gain further support and exposure for the profession.

He plans to attend the National Association of Baseball Leagues' winter meetings, "to meet with league presidents to form some type of alliance of

sports turf managers responsible for A, AA and AAA fields."

**Steve Trusty of STMA: Membership potential barely scratched.**

The association also plans to exhibit at the Golf Course Superintendents Association of America conference and trade show in February.

Trusty says he expects to see "tremendous" growth from the association over the next couple of years.

"We feel STMA has barely scratched the surface in membership potential."

"We're very interested in providing the proper message to the sports turf industry, and the sports turf managers, but also working on helping make the public more aware of the Sports Turf Managers Association."

New STMA chapters are being established in Minnesota, Kansas City, Oregon, Northern California, Pennsylvania, Arizona and Central Florida. Existing chapters are located in Indiana, Illinois, Iowa, Colorado, Southern California and Southern Florida.

The STMA annual conference will be held in Anaheim, Calif. Jan. 24-28. The new STMA headquarters is located at 1375 Rolling Hills Loop, Council Bluffs, IA 51503; phone (712) 366-2669.



## Commercial users take Expo spotlight

Commercial outdoor power equipment users can keep your edge and sharpen your skills at the seminar program planned for Expo '96 at the Kentucky Exposition Center in Louisville, Ky., July 28-30.

Cost of the PLUS (Professional Landscaper Seminars) is \$25 for three days of sessions. Here are some of the scheduled topics:

- "Ask the Pros" panel discussion. Attendees will benefit from a diverse panel of landscapers at different stages of business development. For results of the 1995 "Ask the Pros" panel, see the article on page 10L.

- "Growing People Who Grow Your Business" with Tom Winner of Winner Resource Group. How to use common sense in your management techniques. This is an intensive seminar on the art of building a more productive, self-sufficient team.

- "Tech Tools: Technology You Can Use to Grow Your Business" consists of a team of professionals that will give advice on making the most of today's technology—voice mail, fax-on-demand and more. They'll also make recommendations on sophisticated software developments for bidding and planning.

Expo '96, the largest outdoor power equipment exhibition in the nation, is free if you pre-register, \$20 at the door. To receive a brochure, contact Expo '96, 550 S. 4th Ave., Suite 200, Louisville, KY 40202; (800) 558-8767. In Kentucky: (502) 562-1962. Fax number: (502) 562-1970.

## Study reveals decrease in urban tree programs

The average municipal tree management budget in the U.S. has decreased significantly when adjusted for inflation over the last eight years, according to a study by the International Society of Arboriculture's Research Trust.

The average budget fell from \$4.14 per capita to \$2.49 per capita since 1986.

The study makes clear that urban forest managers must search for alternatives to municipal funding sources if they are to maintain healthy, attractive trees.

"Decreased funding is thought to be one of the greatest challenges facing urban forest managers today," says Trust director William Kruidenier, "and our study seems to validate that belief. To offset the effects of decreased municipal budgets, urban forest managers should look for other resources, such as alternative funding sources, partnerships and citizen involvement."

The study notes:

- actual dollars allocated to tree care as percentage of total municipal budgets, 1986: **0.49%**
- same statistic, 1994: **0.31%**
- city tree management programs receiving funding from municipal general funds, 1986: **94%**
- same statistic, 1994: **67%**
- average tree-related expenditures per municipality for parks, streets, public grounds, cemeteries and nurseries, 1994: **\$399,387**
- average municipal tree management budget, 1994: **\$279,307**
- average cost of most expensive tree maintenance cost (tree removal), 1994: **\$481.79 per tree**
- average cost of least expensive tree maintenance cost (chemical application), 1994: **\$42.41 per tree**

---

## Engine technicians can be certified

If your job is to repair golf and commercial turf equipment engines, you can now become certified through the new Outdoor Power Equipment Technicians Certification program.

Virgil Russell is Director of Certification for the program, based in Austin, Texas. As an independent agency, the program is expanding to include all engine, outdoor power equipment, golf and commercial turf, and power generation technicians.

Tom Kane, assistant director of national training for Kubota Tractor, is chairing a training council made up of service and training professionals from education and industry. An educational foundation to provide support to schools and instruction within the industry will also be developed.

For more information, contact Russell at OPE Technicians Certification, 1946 South IH-35, Suite 100-A, Austin, TX 78704-3693. Phone number is (512) 442-1788 and fax is (512) 442-1789.

## Spring is just around corner, so beware of lightning injury to clients' trees

With spring just a couple months away (we all hope), the usual rash of thunderstorms can bring lightning that can be damaging to trees. Last year's outbreak of lightning damage was especially heavy. Sharon Lilly of Expert Tree Service, Columbus, Ohio, offers these precautions arborists should take:

1) Except for reducing hazardous conditions (like pruning out cracked limbs) and removing "hanging" bark, little should be done for the first year after a lightning strike. Trees can die after being struck, regardless of the extent of obvious damage, but death may occur in a few weeks or not until the beginning of the next season. Therefore, owners should be advised to take a "wait and see" approach.

2) Arborists should be very cautious when called upon to make a diagnosis involving lightning. Lilly says a high percentage of "lightning damage" calls to her company actually involve wind damage. She notes that many insurance companies will cover damage caused by lightning, but not by wind. Even being an unwitting accomplice in an insurance fraud case can damage hard-earned reputations.

3) Installing copper lightning rods and cables connected to a 10-foot copper rod driven into the ground will conduct the charge away from a tree, but it will not keep a tree from being struck. It will provide some protection to the tree, but will not protect nearby structures. However, this kind of system can be expensive (\$500 to \$1500) and is usually reserved for high-value trees such as those crucial to the play of a hole on a golf course or state/national champion trees.

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*A. Thomas Perkins, Ph.D.*

Business Manager

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*Stellaria media*



KNOTWEED  
*Polygonum aviculare*



GREEN FOXTAIL  
*Setaria viridis*



GIANT FOXTAIL  
*Setaria faberi*



SPURGE  
*Euphorbia* spp.



EVENING PRIMROSE  
*Oenothera biennis*



GOOSEGRASS  
*Eleusine indica*

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*A. Thomas Perkins, Ph.D.*

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Brands of preemergent herbicides used in the past year: \_\_\_\_\_

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PTO-953

# [ 'DOG-GONE' GEESE ]

by RON HALL/Senior Editor

Rumors swirled in our offices here in suburban Cleveland—somebody sawed the heads off our plastic swans.

Who would do such a thing? Why? How?

The bogus swans, anchored in the middle of the pond, worked fine for the few weeks that they bobbed in the pond, says grounds manager Tom Sprague. But big November winds came up and blew their heads off. Tom says he will glue the swans back together to use again when the pond thaws.

Tom is an experienced and resourceful grounds manager, but he's got nothing on you, our readers. Although we shouldn't have been, we were surprised at the incredible range of solutions you offered to our November "Talkback" on controlling Canada geese.

Dogs—certain dogs anyway—love to chase geese and eventually drive them away, many of you told us. ( Sorry we couldn't use more of your tales—no pun intended—but we ran out of space.)

"This year Winchester Country Club purchased a border collie named Tess. Border collies herd sheep and cattle.



Dan Higgins says Tess does a great job of keeping geese away from Winchester Country Club, Winchester, Mass.

Tess herds the geese until they fly away. She has become somewhat of a heroine here at the course,"—**Daniel P. Higgins**, Winchester (Mass.) Country Club

"The park district bought a chocolate Labrador retriever named Lucy. She does a great job keeping the geese moving, especially at our golf course. We borrow her occasionally to run the parks. She won't hurt the geese."—**Mike Schiller**, Schaumburg (Ill.) Park District

"When we obtained 'Brigadoon,' a border collie, he wasn't trained. But we trained him and he does a great job."—**Keith Kist**, Pine Ridge Country Club, Wickliffe, Ohio

"My half-crazy shetland sheepdog loves to chase geese. After three or four sessions, they just don't come back."—**Steve Kennedy**, Red Eagle Golf Course, Eutaula, Ala.

"We purchased a border collie named 'Duke.' The geese! What geese? They're gone."—**Leonard Berg**, Canoe Brook Country Club, Summit, N.J.

Not only does **Doug Jetter's** black Labrador "Dandy Divot" chase geese off of his Huntenwood Country Club turf in Clayton, N.C., it swims right into the pond after them too, earning its reputation as a "goose hero."

Other creative solutions:

- **William Yanakakis** of New Meadows Golf Club in Topsfield, Mass., uses his dog to chase the geese into a small pond, then he unleashes a remote-controlled boat at the geese. "My grounds crew keeps watch and launches our boat at the first sign of uninvited



Superintendent Roy Ladrigan, Golf Courses of Kenton County, Ky., calls 'dead' goose decoys a distressing sight.

guests," says Yanakakis, adding that the geese always fly away.

- **Jim Carpenter** of Silver Creek Metro Park in Barberton, Ohio, uses a "robo-geese," a huge plastic goose decoy rigged to the chassis of an electronic remote-controlled car. "The geese just can't believe a goose can move that fast. It really confuses them, and they take off when they see it coming," says Carpenter.

- **Bob Beardsley** of Port Bay Golf Club in Wolcott, N.Y., "enlisted a local radio-controlled airplane club to practice dog fighting with them (geese)."

- **Barry C. Wood** says his invention, "Dead Goose" decoys, keep live ones from settling onto properties. "The geese believe these decoys to be real and immediately react as if a predator is in the area. Two types of decoys are used; land-based and water-based decoys," says Roy Ladrigan of the Golf Courses of Kenton County, Independence, Ky., an associate of Wood's. (For more information contact Ladrigan at 606-525-1995 or Wood at (513) 792-6017.)



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

To the Editor,

I have been a subscriber to your publication for quite sometime now and I do not recall ever seeing any articles or advertisements on any imaging programs or CAD software. I am a landscape designer in the market for some type of system to reduce my drafting time and to present a more defined and professional image for my company. If you know of any companies that offer this type of program, please present some information in one of your near-future issues.

Scott D. Mallon  
Creative Landscape  
Bridgewater, N.J.

*(Scott: Check out our December 1994 and our January, 1995 issues, which go into great detail about, respectively, CAD and computer imaging for landscape companies. Also, our June, 1995 issue talks about some of the landscape-type computer programs available. Note to prospective advertisers: Scott needs some information on your computers, guys!)*

To the Editor,  
Regarding your article in the November 1995 issue on mowers, I have a question about walk-behind mowers.

The graph in the article gave a really good picture of riders, but we use walk-behinds almost exclusively. Do you have any information that could help us with charting out our mowers?

Randy Haglund  
Kuehne's Plantscape

*(Randy: We have no such information on hand. Your best bet might be to contact one or two manufacturers, who usually have technical people who will answer your questions with the minimum of commercial bias. You might also try your local dealer.)*

To the Editor:

The new look is great; even your new pictures aren't too bad.

Gary Burchfield  
Lincoln, Neb.

*(Gary: Gee, thanks for the compliments...I think.)*

To the Editor:

Great to see you on line. LANDSCAPE MANAGEMENT on line is a useful tool for all trades. I hope this will spawn some much-needed industry-related news groups. I personally would like to see an employment news group for this industry. This brings me to the point of my note.

As a Canadian, I would like to work in the U.S. I am a graduate of the University of Guelph, turfgrass science major, with over 20 years of experience in the landscape construction/grounds maintenance fields.

I am looking for any suggestions you may have to help me accomplish my goals...in turfgrass management or landscape construction for a million-dollar company.

Greg MacKinnon  
Riverview, New-Brunswick  
Canada

*(Greg: The first thing you should do is get involved with the Associated Landscape Contractors of America. The second thing you should do is e-mail one of the trade magazine editors, hoping he will break with tradition and use your letter in his "letters" department. Good luck!)*

• Bill Linder of Linder Lawn and Limb Services, Lindsborg, Kans., says dusting turf areas with ground hot peppers or tobacco dust drives geese away. Bryan Norman of Brandywine Bay Golf Course, Morehead City, N.C., prefers Texas Pete Hot Sauce, 1 pint per 30,000 sq. ft. at 14-day intervals.

• William Hedlund, superintendent of Braintree (Mass.) Park Department, proposes an organized goose shoot involving local sportsmen's clubs with the town police providing security. "Our solution shouldn't become someone else's problem," he says.

• Jim Harris of Stonebridge Golf Club in Memphis, Tenn., allows the vegetation surrounding his ponds to grow 18 inches to three feet. This discourages geese, particularly, goslings from "walking" into the ponds, and the geese often move on. Harris also writes letters to

surrounding property owners politely explaining why they shouldn't feed the geese.

LANDSCAPE MANAGEMENT baseball caps have been awarded for the above suggestions.

Next month look for a new "Talk Back" problem to solve. □



Jim Carpenter's Barberton, Ohio, crew constructed a radio-controlled 'Robo Goose' on a toy car chassis.

# Preparing for the 1996 SEASON

by ED & AARON WANDTKE

**I**t's January. You're counting the days until the unofficial break of winter is over.

But this winter season is a time when you can improve your skills and learn the latest news from across the green industry.

The traditional focus during the winter season is on equipment repair, vehicle repair or replacement, and employee training to comply with state certification requirements. However, most owners and managers overlook their own needs when continuing education opportunities come around each year.

Sure, you recognize the benefits of having technicians and foremen achieve various levels of technical proficiency and supervisory effectiveness. But you should also recognize the need to focus on your own continued business development. Preparing for 1996 by improving your personal business skills will improve the competency of your entire staff.

The three basic areas of management skill you should become proficient at—whether you're a small businessman, golf course superintendent or grounds manager—are **finance**, **personnel** and **marketing**. Competency in these key areas requires regular education and reinforcement.

So before you start the 1996 season in earnest, you should go through the list of questions attached to this article and make sure you've got all the answers.

#### **Finance: misunderstood?**

The most important of the three basic areas of management skill is understanding

finances. Key team members must have a basic understanding of finance and how it contributes to the overall operation of the unit or team.

When people begin to understand the financial picture, they soon find ways to cut costs and re-evaluate how time and money



is spent.

Compare the 1995 budget to the 1996 budget to provide key employees with insight into the consistency of the unit's financial performance. Prepare a budget to identify problem areas and opportunities where costs may be cut or may need adjusting up or down.

Monitor cash flow and budgets to avoid cash crises. To maintain the profitability of the unit, you may have to eliminate costs which are not affordable at a given time. This also requires constant attention.

#### **Personnel: a new twist**

Each year, old employees become wiser

and new employees are introduced to the system. The revolving door requires you to be dedicated to improving your skills every year.

Motivating and training are the key components to employee improvement. You must be able to communicate with employees and implement the components, and that takes extensive training because employee personalities are always changing. "People" skills and communication skills are difficult to teach and even tougher to implement.

It's not always easy to find the right incentive to motivate employees. But you can overcome this obstacle if you know their personalities and goals, and then choose incentive plans tailored to the individual worker.

"Training" refers to technical know-how, like weed identification or operating a new piece of equipment. "Education" refers to teaching a new process or increasing an employee's knowledge regarding a certain subject. If you are investing a lot of time and money in training employees, the costs should be justified through increased knowledge and productivity. If there is none, you should re-evaluate the programs.

An employee may understand all the issues discussed during training, but if he or she doesn't apply the tools, the training is a lost investment.

To judge training effectiveness, assess

*Continuation and Off-Season checklist  
on page 29*

# Seeking a 'common voice' at the Capitol

*Politicians claim that their approach to national issues is shaped by the people 'back home.' Yet, special interest groups continue to drive legislation in the U.S. today.*

by JERRY ROCHE/Editor-in-Chief

**C**onsider groups that provide input and incentives to legislators, beginning with high-profile organizations like the United Auto Workers, American Association of Retired Persons, National Rifle Association, Ralph Nader's various "consumer protection" organizations. The full list is virtually endless.

And, hesitant as we are to admit it, the bigger the special interest group, the more wallop it packs in the halls of Congress.

The green industry does not lack special interest organizations. Rather, it lacks special interest organizations with enough clout to make much of a difference.

With the exception of the Golf Course Superintendents Association of America, no industry association has 2,000 members or more. Some association executives argue that their members are companies rather than individuals, but the fact is that 1,000 small businesses still don't amount to a hill of beans in Washington.

Is the time right for the green industry's professional organizations to start planning a merger that would effectively coalesce and carry to Washington the wishes of thousands upon thousands of landscapers and groundsmen?

"Associations are merging," Debra Atkins, executive director of the Associated Landscape Contractors of America (ALCA), freely admits. "Every day, I hear about more mergers."

Some existing associations have joined forces in the past. The Green Industry Expo draws from ALCA, the Professional Grounds Management Society (PGMS) and the Professional Lawn Care Association of America (PLCAA).

"The Green Industry Expo shows that organizations can work together, just like the cooperation between ALCA and American Association of Nurserymen (AAN) on government regulations," notes Atkins.

Less than two years ago, the AAN and ALCA held serious merger talks that eventually broke off. However, a special task force report noted this:

"Industry response to the environmental movement has been generally effective, but is far too limited. The industry must speak more loudly, more often, and more cohesively to ensure that the public's interest in ecology remains a positive force for us."

Tom Delaney, government relations expert for the PLCAA, doesn't wholly agree with the need for "one voice."

"Sometimes, the different organizations are on separate sides of an issue," he points out. "We have to be responsible to our members and who we represent. There are times when we have to keep our uniqueness. We have our separate marching orders



James: RISE very distinct from user groups.



Bolusky: Different green industry segments have different priorities and issues.

from members, and after we do that, we can look for commonalities.

"Certainly, though, when we need to be on the same side, we all know each other and we do cooperate."

#### **Continued cooperation**

All the national green industry executives gather twice a year. Last summer, it was at the headquarters of the American Society of Landscape Architects in suburban Washington, D.C.

"Often, we find things we can work together on," Atkins notes. "Like the Gallup Poll we did last year [homeowner attitudes on lawn care and landscaping]. When you split up the costs on projects like that, it can be a very attractive proposition."

Ben Bolusky of the AAN, which has a strong presence in Congressional circles, thinks the green industry needs a more unified voice.

"Would the green industry benefit from stronger cohesion? You bet!," says Bolusky.

"One of the great strengths of the green industry is its diversity—but that's also its greatest vulnerability. Different segments of the green industry have different priorities and different issues. Not all of them may be in synch, but most are. The potential for creating a unified green industry is largely untapped."

#### **Who's piqued?**

Of the associations whose interest might be piqued by this concept, the AAN and PLCAA now deliver the best governmental relations services to their members. Both hold annual meetings in Washington (AAN's "Legislative Leadership Conference," PLCAA's "Day on the Hill") to help their members get a better hold on Congressional operations.

"The AAN has had a long-standing gov-



**Atkins: Gallup Poll an example of cooperation.**

ernment representation," Bolusky notes. "It's one of the primary reasons members join and continue to renew their memberships. And the AAN has been able to leave its mark. We represent all segments of the industry—growers, landscapers and retail garden centers—and provide a single industry position."

The AAN is always seeking to increase its grassroots base. It recently said it would actively seek the help of state

nursery and landscape associations to support its Lighthouse Fund, a program designed to communicate national issues back to members of state organizations.

And, certainly, don't forget the Golf Course Superintendents Association of America (GCSAA), the largest, best-funded and most independent of all green industry associations.

"We are a part of a number of coalitions, including Responsible Industry for a Sound Environment (RISE)," notes the GCSAA's Pat Jones. "Pesticides and specialty chemicals are the largest common issue the whole green industry shares, and a lot of folks are doing good things together. On those big issues, we're all more unified than we've ever been before."

#### **The RISE factor**

RISE, which carries the message of specialty product manufacturers, formulators and distributors to law-makers, accepts end-user groups as members. However, "RISE does not try to represent those associations unless we pre-agree on an issue—and vice versa," notes RISE exec-

utive director Allen James.

"They are independent, and they have their own representatives. The associations prefer to consider it a partnership. It's an independence issue; as a matter of fact, they are pretty resistant to having their members believe they're represented by RISE."

#### **Other factors**

Bolusky says three factors would determine the effectiveness of a green industry umbrella agency watching over, and speaking to, the Washington crowd:

1) There would have to be the perception of being a single voice for an entire industry. In some industries where multiple "voices" exist, the members of Congress don't know which way to turn.

2) There would have to be grass roots support for that one voice. The organization would have to be able to provide members of Congress with the thinking of its constituency "back home."

3) It would have to be located in the metro Washington D.C. area, to be available to meet with legislators on a moment's notice.

"The PLCAA and GCSAA are very important elements of the green industry," notes Bolusky. "They've got a strong track record, but from a logistics standpoint, they are at a disadvantage not being here in Washington."

#### **What form?**

Many options exist for forming an "umbrella" agency.

- The most practical would draw government relations experts from the existing associations to form a new organization. The sole purpose of the new group would be to provide a united voice in Washington, and to report back to its contributing associations.

Another option is a "federation," or "league," which would serve to keep the



**Delaney: Member concerns come first within each organization.**

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existing associations and societies intact. But their individual powers would be subordinated to a central authority—perhaps an empowered under-director or small council—in the area of governmental regulations.

• Finally, there is the concept of a grand merger: of ALCA, AAN, PLCAA, PGMS—perhaps even the GCSAA—and any other interested associations.

#### The hang-ups

The last option remains highly unlikely, mainly because the GCSAA is so financially independent that it normally doesn't seek assistance. The powerful Lawrence, Kansas-based organization just recently hired a team of attorneys to serve as Washington lobbyists.

"Our Board of Directors has approved a much more pro-active stance," notes Jones. GCSAA government relations counsel

Cynthia Kelly adds, "But we're looking at cooperating with a lot of different coalitions like the Alliance for Reasonable Regulation. They're a good way to share information, when we have consensus on an issue—on an issue-by-issue basis."

Another factor: not all the above organizations might be interested in supplying their members with a government relations service.

"We're kind of an odd-ball organization," notes John Gillan, executive director of the PGMS. "The members are very fragmented. We have not had the clamor for more voice in government regulations. We do some ancillary things—dip in and out—but it's not high on the board's priority list."

Certainly, the willingness to participate is of utmost importance.

"To make it work, the system has to be right for the [individual association] leader-

ships," ALCA's Atkins is quick to point out.

Bolusky agrees. "When you talk about establishing an 'umbrella' organization, you're talking about the politics of existing organizations and personalities," he notes. "Even so, you've got some consolidation happening now: the AAN is an umbrella agency for the National Landscape Association, the Wholesale Nursery Growers of America and the Garden Centers of America."

"There are things I'd like to be doing more of, so we leave that dialog open," says Atkins. "There's been more cooperation in the last few years among associations.

Everyone's very open to new ideas. It's a matter of the timing and the economy."

"The Federation of Green Industry Associations." Sound far off? It probably is. But, depending on how the winds of national politics blow in coming years, it may not be as far off as you think. **LM**

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# TRIMMERS: they must 'feel' right

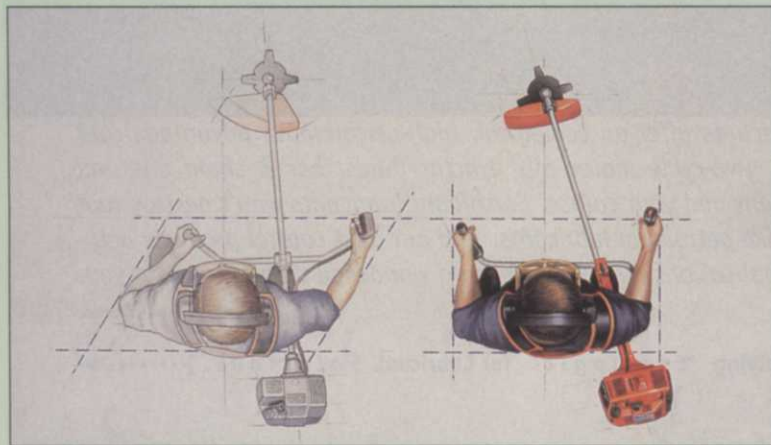
Employers bolster productivity by making employees more comfortable as they work. They also save on workman's compensation claims, training costs and lost work days.

This is called ergonomics, the study of how people interact



PHOTOS COURTESY HUSQVARNA

Trimmer design should allow for ease of movement from side-to-side.



A tool designed with proper ergonomics in mind can be worth extra cost.

with their working environment. Landscape professionals—whether they realize it or not—base decisions on ergonomics.

"Ergonomics means recognizing what mechanical factors contribute to workplace injuries," says Dr. Stephen Dawkins, an ergonomics specialist with Occupational Health International of Atlanta, a company that focuses on work-related injuries. "For a lawn professional these factors involve everything from tool design to vibration in equipment to how tools are used."

Workers who perform repetitive tasks or use vibrating hand tools are at a higher risk of developing problems like carpal tunnel syndrome, a disease that damages the nerves in the wrist.

These "cumulative trauma disorders" now make up almost 70 percent of occupational illnesses, says the Bureau of Labor Statistics. New technology may be responsible for the rapid rise in injury reports.

"Many of the tools that we use allow us to work faster and create an environment where the body is not able to keep up," Dawkins says.

Many contractors already take ergonomics into account when selecting equipment, even if they've never heard the term.

Ray Knoll, landscape maintenance supervisor for Western DuPage Landscaping, Naperville, Ill., says he's willing to pay about \$500 more for a hydrostatic riding mower that won't cause operators to have foot and leg cramps.

Howard Mees, vice president of operations for Environmental Care Inc., Calabasas, Calif., also looks for hydrostatic models with quiet transmissions.

"We don't think of it as ergonomics; we think of it as operator comfort and client friendliness," he says.

If a tool appears to be causing worker discomfort and injuries, Dawkins recommends paying up to 20 percent more for ergonomically designed equipment that reduces these problems.

Dawkins suggests buying pruners, trimmers and edgers that allow operators to work with their hands close to the body, in comfortable positions. Double shoulder straps that are well-padded also increase comfort, adds Mark Michaels, senior forestry product manager for Husqvarna in the United States.

To minimize cumulative trauma disorders for your landscape employees, here's a checklist from the University of Utah Research Foundation:

- ▶ Are reaches as close to the body as possible and always within 18 inches in front of the operator?
- ▶ Are there forceful or quick, sudden motions?
- ▶ Are there sustained static muscle contractions?
- ▶ Are there shocks or rapid build up of forces?
- ▶ Are workers restricted from changing body positions?

Most contractors like to try out equipment before they purchase. They should ask employees to use it also on a trial basis if possible.

Moore Landscapes Inc., Glenview, Ill., started a safety program 10 years ago. Today the 90-person company is reaping the unexpected benefits.

"When you can demonstrate that you care about your workers as well as your clients, that you invest in the best equipment possible, it's a good selling point for doing business with property managers," says Vice President of Maintenance Pedro Berreles. "It works for our customers, too." **LM**

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# 'Partnerships' could fill funding gap



*Terry McIver*

TERRY McIVER  
Managing Editor

**A**cquisition and maintenance “partnerships,” in which local sports clubs pool their monies to buy and—in some cases—help maintain athletic fields, could be a way to fill the budget gap in many municipal sports programs.

Bill Whirty of the Fort Collins, Colo., Parks and Recreation Department endorses the idea.

“Many municipalities,” explains Whirty,

“haven’t kept up with the growth, and field shortages are likely.”

Money availability, however, is often at the whims of the voters, who—while they have every right to decide on tax levies—are often unaware of what’s needed to make those fields safe for their children’s sports activities.

Youth sports clubs are not always tied to a city program and need

places to play, but don’t have much land of their own. They look to the city or county for space to play.

The city can’t always afford maintenance, which is where acquisition and maintenance “partnerships” can come to the rescue.

“About four years ago,” says Whirty, “a school district had 10 acres of land it wasn’t using. The Fort Collins youth soccer and youth baseball had some money and went into a cooperative agreement with the city to develop and maintain the fields.” The school district crews handle mowing and irrigation duties, and the Parks and Recreation Department maintains the baseball infields.

Other duties, such as snow removal and weed control, are handled by whichever department has the best equipment or expertise. Tax money allocation is smarter. As Whirty rhetorically asks, “Do [voters] care which department is using the

**[GOLF/GROUNDS]**

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Lessons from green renovation

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How to reduce tree failure

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GCSAA show preview

tax money, as long as the fields are taken care of?”

Education includes explaining just what it takes to grow healthy turf. A local soccer club in the Denver area, for example, thinks 40 hours of play a week is “moderate” use.

“We need to get input from them to know their needs,” explains Whirty, “and educate them so they’re our allies.”

Steve Trusty, new executive director of the Sports Turf Managers Association, agrees that municipal sports face a funding gap. He plans to engage in some helpful public relations during his tenure.

“One of the things we want to do,” says Trusty, “is help educate not only the sports turf managers around the country, but the people they have to depend on for the funds.”

“The school districts are pretty poor right now, and athletic groups don’t care where they’re playing,” says Whirty. “As long as they play.”

# Greens renovation: What I learned

by DOUG PETERSAN / Baltimore Country Club

**W**hile a superintendent at Baltimore Country Club and Prairie Dunes Country Club (Hutchinson, Kans.) before it, I was involved in two separate renovations. The key lesson I learned was that, before embarking on a renovation program, you must examine and meet several criteria.

Here are the questions you must ask yourself and your board:

1) Are members satisfied with the existing architecture? Are the greens the right size with adequate cupping areas to support play? Are they designed properly?

2) Does the existing subsurface of the green support good healthy turfgrass? If it doesn't, can it be modified so it will support healthy bentgrass? Do the greens drain properly, both on the surface and through their soil profile? If they don't, can they be altered to allow for good surface and subsurface drainage? Are there layers in the soil profile? Are the chemical and fertility levels of the soil proper for the area?

club afford the loss of revenue from greens fees, golf car rental, restaurant sales, and pro shop sales?

When developing your renovation program, a complete cost analysis is required. We had serious revenue losses at all profit centers when we renovated.

At Prairie Dunes, the number one criteria was to not change the contours of any greens because the course was already highly rated.

After deciding to renovate, we triple-cut the greens at 7/100ths of an inch on Labor Day weekend. We aerated in two directions with ½-inch solid tines that went 10 inches into the soil. The greens were then fumigated by an independent contractor and covered. Temperatures for the fumigation were reasonably good.

On the third day after the fumigation, we removed the cover and let the greens air out. Two days later, Pennlinks pre-germinated seed was verti-cut into the green at a rate of ½ lb. per 1000 sq. ft., in two directions. Six-foot collars were seeded with bluegrass.

Greens were then fertilized with a

3) Can the members or players be properly educated about the constraints of the program? Can temporary greens be prepared well enough to provide quality playing conditions? Can the

This green at Baltimore Country Club was expanded considerably. All greens were fumigated.



Milorganite/seed mix, 10 lbs. of Milorganite to 1½ lbs. of seed. Subdue granular fungicide was applied, and the greens were raked.

We got good germination the third day, and the greens opened up the following April 30th.

Total cost was \$30,000 plus loss of revenue.

At Baltimore Country Club, we changed the green perimeters but not the contours and re-established the original edges of the greens, expanding them from 100,000 sq. ft. to 130,000 sq. ft. The greens also had organic layers that needed to be addressed.

Stan Zontek of the USGA Green Section and Dr. Joe Duich of Tee-2-Green were involved with establishing the Pennlinks bentgrass.

The sod on the greens and the collars was stripped on Labor Day. We topdressed with sand (about 12 yards per green) before aerating so we could drag the sand into the aeration holes. We then deep-time aerated twice, using ¾-inch solid tines, followed by another deep-tine aeration with ½-inch tines spaced at two inches.

The top three inches of soil were heavily cultivated and mixed, with Aeroblades, and new irrigation pipe was installed by an irrigation contractor.

Finally, the greens were fumigated.

When the fumigation was complete, we let the greens air out for two days and tested our new irrigation heads. The greens were raked, Sand-Pro'd and rolled with a smooth roller.

Pre-germinated seed, mixed with Milorganite and Subdue fungicide, was put down in one application.

When established, first mow was at 45/1000ths of an inch.

Temporary greens were not necessary because Baltimore Country Club is a 36-hole facility, and we routed all golfers to the other 18.

Estimated cost was \$120,000.

I feel that a renovation or fumigation and regrassing program can be a good program for clubs if the above criteria are addressed and met. One cautionary note: don't let anybody—including your board—talk you into opening too soon in the spring. If any of the above criteria cannot

be met, a renovation program could be an absolute failure. □

—Doug Petersan is superintendent at Baltimore Country Club in Timonium, Md., and a member of the Golf Course Superintendents Association of America. He can be reached at (410) 252-9191.

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Circle No. 105 on Reader Inquiry Card



When this tree failed, it took out power and telephone lines, and blocked traffic on a busy secondary road in suburban Cleveland.

# Develop a tree failure reduction policy

by RON HALL / Senior Editor

**Y**ou as a grounds manager or golf course superintendent spend most of your time caring for turfgrass, but don't ignore what's hanging over your head and the heads of others who use the properties you manage—trees.

Your responsibility, to one degree or another, includes trees, particularly from a safety standpoint.

You can meet this responsibility by developing a "Tree Failure Reduction Policy," says Dr. Thomas Smiley, a plant pathologist and soil scientist for the Bartlett Tree Research Labs, Charlotte, N.C.

"It (the policy) can protect people using your properties, and it can protect you," says Smiley. Also, it helps reduce the "politics" that too often muddy tree management decisions.

To be effective, the policy must be written out and include the signature of your superior. The remainder of your grounds crew must also be aware of it, says Smiley.

Broadly, the policy should:

1) Define what you consider to be a hazardous tree. (Books are available from the International Society of Arboriculture, P.O. Box GG, Savoy, IL 61874-9902; 217-355-9411.)

2) Set tree inspection intervals. Once a year? Twice a year? After major storms? Different managers have different intervals, says Smiley, and most schedules are acceptable as long as they're reasonable.

3) Prescribe corrective measures, but then make sure they're done "according to standards."

4) Assign one person who will make tree decisions.

5) Keep records of completed inspections and of all remedial work.

## Act quickly

While there's no way to completely eliminate the risk of tree failure, says Smiley, you should be aware of, and act on, conditions that can lead to failures.

Also, be aware that a tree doesn't have to be structurally unsound to present a hazard. Perfectly healthy trees in the wrong locations can be just as hazardous.

For instance, how about the lightning danger presented by trees in your park or on your golf course? Or the tree that is obstructing the view at an intersection or of a road sign? Or that dead tree you've allowed to remain standing near a fairway or beside a parking lot because it provides habitat for wildlife?

Because most of you are managing properties that contain mature trees, and you're concerned with the safety of the people using your properties as well as limiting your liability, you should acquaint yourself with, at least, the basics of tree risk analysis, believes Smiley.

And, while some risks, like hanging dead branches and split crotches, are visible, others aren't. It often takes an experienced arborist to determine the amount of decay *within* a tree, and whether that decay warrants remedial action. This includes decay and other problems in tree roots. One U.S. Forest Service study suggests that up to 75 percent of tree failures in conifers and about 50 percent of failures in hardwoods are due to root problems.

"We've got a lot farther to go with predicting root failure. We're pretty good with above ground, but when it gets below ground, failures are harder to predict," says Smiley.

He presented these observations at the Institute of Parks and Grounds Management Conference in Toledo, Ohio, this past November. □



# Delegation as a handy 'tool'

**T**he modern golf course superintendent's job often includes multiple tasks which have nothing to do with growing healthy turf.

"As we concentrate on those other things—environmental issues, safety issues, pesticide issues, personnel—we find that we spend less time on the art of greenkeeping," says David S. Downing II, CGCS, director of golf course operations for Wild Wing Plantation, Myrtle Beach, S.C.

"I think we need to develop a better balance, because the bottom line is: golfers still play the game on the grass," says Downing, who has become very good at balancing duties. He was the first employee hired at Wild Wing, during the rough-in stage of the first course. Nearly six years later, all four courses at the thousand-acre site are complete. Downing manages 94 employees.

"With a complex of this size," explains Downing, "we set the quality standards, the guidelines of how often, when and how we want things done. Then we rely on the superintendents and assistants to make it happen."

Each golf course is operated as an individual entity rather than a zone. Each superintendent or assistant has a work crew, and daily reports are made for each course.

## Constant play

Wild Wing hosts 100 to 150 players per day in the slow months, and 175 to 200 in March, April and October—per course!

"Because we strive to produce conditions at least equal to a premium country club, it's a balancing act to reach the neces-

sary level of efficiency while keeping the player's experience the top priority.

"I'm proud of the course, especially the greens, with the amount of rounds we do," says Downing, who credits the superintendents, assistant supers and crews.

## New technology

Downing watches for new technology



David Downing hopes employee safety training pays off in employee commitment and loyalty.

and tools for the superintendent, including turfseed and control products.

"We've started innerseeding A-1 perennial ryegrass into the greens. We use plant growth regulators (PGRs), not just on the roughs, but to control growth on the bermudagrass fairways and tee boxes during the rainy season, when mowing time can be limited. Because we oversee with perennial ryegrass early in the season to keep a constant green, we also use PGRs to hold the bermudagrass in check and give the rye a competitive advantage."

## Loyalty and retention

Wild Wing offers a competitive employee package, also explores ways to fur-

ther strengthen employee retention.

"Last summer alone," recounts Downing, "nearly 5000 jobs opened up. Fifteen golf courses have been built in the last two years. Sixty percent of our crew has become pretty stable, but that still gives us a 40 percent turnover."

"Training is a plus in retaining employees. We emphasize that we're training them for their benefit—to ensure their safety, to improve their skills, and to make their work day flow more smoothly. Because we're doing all this for them, we expect a good job and some commitment in return."

The club's groundwater table varies between two and five feet below the surface. "It gave us great flexibility on lake construction during the building process. The holes dug for the lakes filled up gradually, but naturally. The soil that was removed was then used for the fairways, greens and mounds. Wetlands are prevalent here and we've dealt with many of those issues during construction. The courses are built with the holes primarily parallel to the wetlands areas to reduce the impacts."

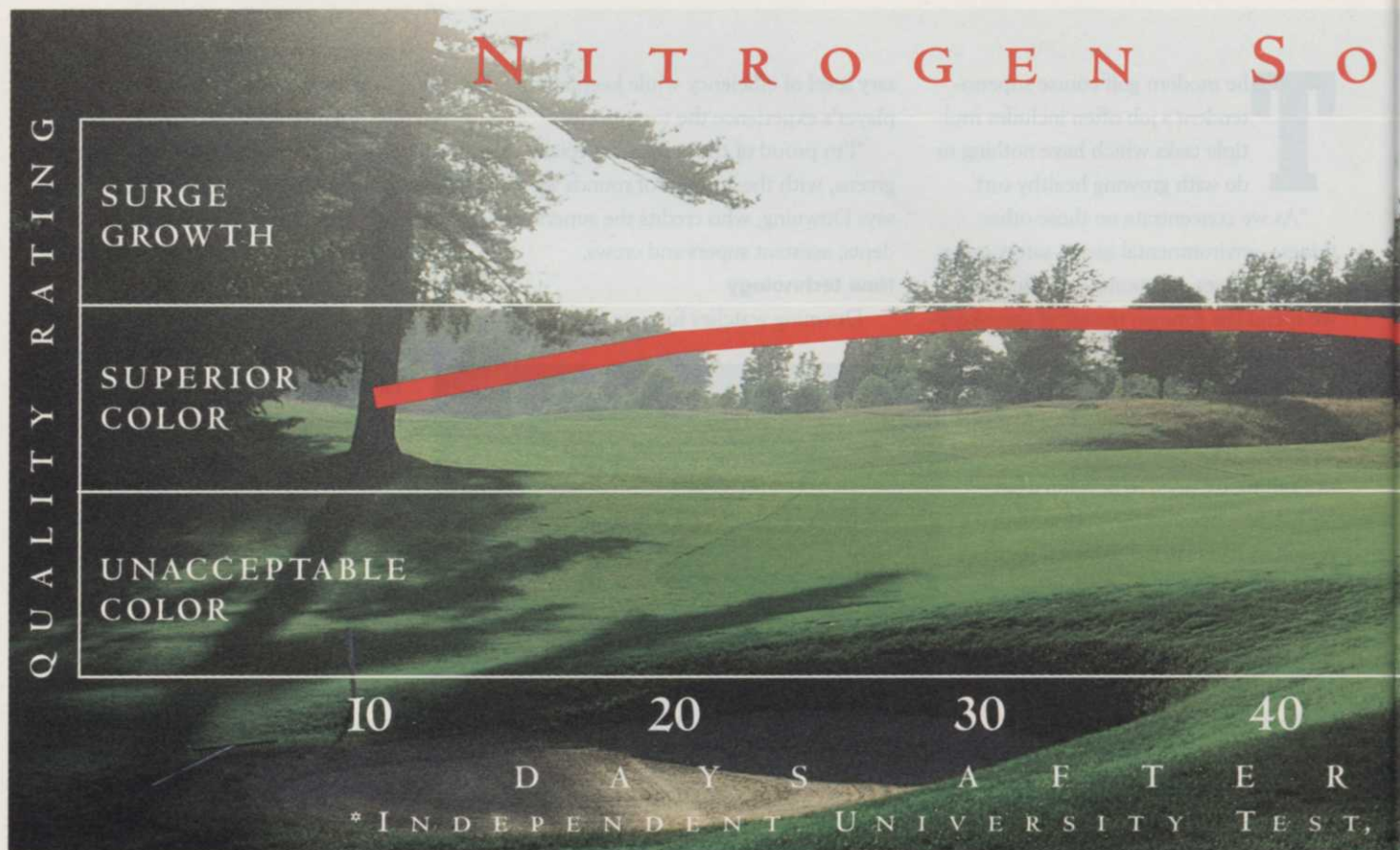
Downing says the construction style makes for less efficient use of the land, but was in the guidelines set by the local Coastal Council and Corp of Engineers.

"Now that building is completed," says Downing, "we basically concentrate on proper maintenance of the wetlands areas and avoiding doing anything that might disturb them."

The 9th Annual John Deere Team Championship Golf Tournament was held at the course in October 1995, which motivated Downing and his crews to crank up the turf management a notch. Many of his superintendent associates played in the tournament, which Downing considers to be one of golf's big events. □

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# New drains, modified bunkers improve 'wetlands' course

by LESLEE JAQUETTE

**S**ometimes, rebuilding is the only way to solve weather-related problems—such as slow drainage and interrupted mowing schedules. Certainly, the weather keeps Jerry Mathews and assistant Jim Smith busy as they

dodge the rain drops at Port Ludlow Golf Course.

The geography and cool, moist climate of the upper Northwest can make turf soggy in fall and winter. Autumn rain, often for days at a time, soaks the low-lying ground at Port Ludlow. More than 20 acres of it is wetlands.

Three years ago, 60 slow-draining bunkers at Port Ludlow were successfully rebuilt as a way to save on maintenance and improve playability and aesthetics.

"They were originally filled with finer, white sand, and a lot [of the poor drainage] was caused by the severity of the slopes," says Smith. "Water would wash sand to the middle of the bunkers."

Bunker slopes were modified, and the bunkers were filled with a coarser, heavier, tan-colored sand.

Over the winter, the crew installed an additional 100 drains to improve water flow from the slowest-draining areas into local creeks and holding ponds. Mathews and Smith use a combination of "French" drains—which are basically large holes dug without tile and backfilled with rock—and tile drains to divert water in low-lying areas.

"From an economic standpoint, the drains are essential," says Smith. "It's important to getting people out to play golf year-round."

To further improve fairway drainage and playability, a new topdressing program was begun. Fairways are now topdressed twice a year with a very coarse grade of sand.

"It really helped out in the spring," says Smith. "It firms up the fairways. We're going to implement more topdressing." Continued shatter-core and hollow-tine aerification also help out.

## Hurry up and mow

Mowing—which, for any golf course, is the most often-performed task—must be done quickly and efficiently during breaks in the stormy weather.

Toro 216 lightweight, triplex mowers are used on the Port Ludlow fairways to avoid tire damage to wet turf.



Rainfall from adjacent hills flows onto this fairway regularly, making proper drainage a necessity.

PHOTOS BY THE AUTHOR



Equipment manager Dave Baber, left, and landscape manager Jim Stenger check the progress of wildflowers.

"We check the weather forecasts day by day," says Smith. "If five days of dry weather are in the forecast, we'll get out there to mow as soon as the ground is dry."

The turf goes semi-dormant in fall, which helps reduce mowing frequency. In early November, mowing is cut back to once a week. By December, mowing is needed only every two weeks.

Port Ludlow fairways are kept at a half-inch in summer, and raised to  $\frac{3}{8}$ -inch during fall and winter.

Greens are mowed at  $\frac{1}{8}$ -inch in summer, and .150-inch in fall.

The expansive, rolling contours of Port Ludlow are an added challenge to the mowing crews. Some of the 60 bunkers have dips so deep they have to be groomed with fly mowers.

#### **Saving money, pleasing golfers**

Three acres of out-of-play area have been converted to wildflowers, which equipment manager Dave Baber says has

reduced labor by about 200 hours. About three more acres of wildflowers are to be sown among overgrown ryegrass in out-of-play areas, and along paths between greens and tees.

In addition to the wildflower mix, Stenger's crew of four plants about 24 varieties of annuals—for a total of 6,000 plants—during a "crash" spring planting program.

"We're a resort golf course, explains Smith, "and the price [to play] goes up May 1. So we want all the plants in the ground by that time. It's a two- or three-man operation."

Rhododendrons are a popular choice for shrubbery around the course. Stenger adds up to 100 rhododendrons each year, and feeds them four times annually.

#### **'Liquid sod'**

Baber makes good use of soil cores. He combines the plugs with seed and sand to make what he calls a 'liquid sod' mixture, similar to that which you might see on a tee for divot repairs. He says the mix helps the seed germinate quickly, and is used for quick fixes around the course, such as along cart paths or deep tire marks.

The soil-sand-seed ratio is 5:1:2.

"If you've got the right temperature," says Smith, "you can even grow [turf] nurseries with it."

#### **Let the poa grow**

*Poa annua* (annual bluegrass) thrives on the course thanks to the cool, moist climate. Greens are 70 percent poa, but Mathews and Smith make it work.

"You don't try to get rid of *Poa annua*," advises Smith. "You can have quality turf with poa if you maintain it. It doesn't like 80-90 degree weather, and can take up nutrients at air temperatures 10 degrees cooler than bentgrass can. So even into the winter months, the poa turf is healthier." □

## Greens and fairways alike respond well to 'spoon-feeding'

The IPM plan followed at Port Ludlow includes weekly documentation of disease flare-ups. Assistant superintendent Jim Smith says he can pursue a curative plan of attack and plan fertilizer and pesticide applications as needed.

"A bonus of the IPM-documented program is that we can evaluate and then react," says Smith.

Last summer he and superintendent Jerry Mathews tried biostimulants from the Floratine Co. (Collierville, Tenn.) to promote root growth: 0.2 lb. were applied to each green in two-week intervals; 3 to 4 lbs. are applied to fairways four times a year.

Lately, the nutrient program for Port Ludlow's greens has been based on Floratine's liquid fertilizers: "Tiger Turf" 4-4-16; "Tournament Pride" 18-3-3; and "Starter Turf" 6-12-4.

"We go low-volume: 0.89 oz. per 1000 sq. ft.," explains Smith. "The lower the volume, the better."

Floratine's "Astron" is used every two weeks at 2 oz./1000 sq. ft. to further promote turf health and stress resistance.

A micro-nutrient called "Renaissance" is used once a month.

Tees are fed with granular products. □

# THE GRUB.



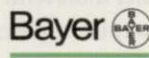
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# Last-ditch rescue tips for ailing greens

*A USGA Green Section official reveals simple strategies for helping heat/humidity-stressed greens stay alive.*

Several weeks of unrelenting heat and humidity took their toll on greens in the northeast last summer. The once-in-10-year conditions didn't damage all greens, nor even a majority. A declining green or two on a course was not an unusual sight, though.

Some superintendents lost jobs because of it.

"When one or two greens die, the membership wonders what did you do to these and not the others," said Robert C. Vavrek, Jr., USGA Green Section. "It was hard to explain."

A variety of conditions predispose a green for failure under unrelenting heat and humidity, Vavrek told about 300 superintendents at the 1994 North Central Turf Conference near Chicago.

The location of a green, shielded either by a hillside or surrounded by trees, may put it in jeopardy. Air movement is limited. Disease pressure increases.

Also, layering—either through improper construction or maintenance—is not such an uncommon problem. Cores taken from a suffering green will reveal this.

"There's a layer somewhere and the water is not moving through the soil profile," Vavrek said.

In talking to superintendents who kept their greens playable—and membership relatively satisfied—Vavrek offered these pointers for rescuing greens during periods of unusual heat and humidity stress:

- Fans on the green, or removing several trees can offer short-term help.
- Put away the triplex mower and use a

walking mower.

"You see it time and time again, golf courses spending money on fungicides and hiring an extra person, but they won't buy one or two walkers to have on hand for an emergency," said Vavrek.

- Turn off the automatic irrigation sys-

tem. Keep the green on the dry side. Hand water as much as possible. Quoting from a 50-year-old brochure from the Canadian Golf Course Association, Vavrek said: "More grass is killed by overwatering than by underwatering."

- Aerify, spike or use the Hydroject. "If I had one (Hydroject), I would be using it a lot," he commented, perhaps even on a 7- to 10-day schedule on a heat/humidity-stressed green.

- Consider "a very, very low rate" of nitrogen—perhaps an organic source—and phosphorus from a spray tank.

Successive applications of fungicides and fertilizer is unwise, said Vavrek. "Keep it simple." □

## Spoon-feeding, higher cuts save the day in Washington, D.C.

Steve Hilbun's tenure as superintendent for the East Potomac Golf Course began in June, and the summer heat made his employment a certain baptism under fire.

Hand-syringing was one remedy against turf wilt. The bad news was that greens monitoring became a 12-hour-a-day job.

"You'd get here around 4:30 a.m., be here till 7 or 7:30 p.m., for one to three days a week," says Hilbun.

"I would not rely on the automatic irrigation system alone," says Hilbun, who knew the importance of in-person monitoring.

"I would use it for 10 minutes early in the morning, depending on the temperature. There was also some evening watering, for about 10 minutes at 8 or 9 p.m. And we watched for any fungus that may have been activated by water being on the greens overnight."

Hilbun also relied on organic fertilizers—usually in half-pound applications—

during the heatwave, and Aqua-Gro wetting agent tablets.

Milorganite (6-2-0 analysis) and another 22-00-16 fertilizer were applied.

Hilbun tried the Peters 20-20-20, water-soluble nitrogen solution at a rate of 1/10 lb./1000 sq. ft.

Hilbun raised the mowing height on his Toro triplex units to 7/32-inch, from the usual 3/16 height, with—thankfully—no complaints from golfers.

When all was said and done, greens damage at East Potomac was minimal, with only a trace of brown patch and some anthracnose toward the end of the summer. There was no pythium damage, and dollar spot was held in check.

"We'd get some hot spots, but we did not lose any greens," reports Hilbun.

Hilbun is considering the use of wetting agents more in 1996.

The East Potomac course is a 36-hole layout: one 18-hole course and two nine-hole links. □



# Nitrogen, growth regulators for quality Florida courses

**B**ermuda greens need to be well-fed," says USGA consulting agronomist John Foy, who advises superintendents in southern climates to follow at least the minimum fertility requirements for that favorite warm-season grass.

"The old rule of thumb, a pound of actual nitrogen per 1000 sq. ft. per growing month," is essential, advises Foy.

"New, high-sand rootzone greens will probably need more, but once they mature, a pound a month is reasonable. The USGA's environmental research has proven that when nitrogen is applied frequently, in lighter rates, the potential for nitrate leaching is greatly reduced."

Foy believes strongly in the value of potassium for bermudagrass greens.

"Dr. (Jerry) Sartain's work was recently published, and he's pretty adamant about a 1:1 ratio," says Foy. "I'm very adamant about at least 1:1, and in the field I see much better results with something closer to a 1:2 annual potassium fertilization program."

According to Foy, the higher potassium range results in better root growth, better general stress tolerance, heat, cold, wear, and drought tolerance.

## **Fairway upkeep keeps up**

"Golfers not only want better greens, they also want perfect fairways," says Foy. Thankfully, equipment can help you approach perfection.

"If you had all the money in the world to be used on equipment," says Foy, "the ideal program would be to use a lightweight mower in the winter time and bring back the seven-gangs in the summertime. The lightweight mowers have great flexibility in mowing patterns, and you can do more cross-cutting and circle cutting. Gen-

erally, they have a better quality of cut, because they're hydraulically operated reels."

Foy says the drawback to using lightweight mowers on bermudagrass fairways is, ironically, their light weight.

"You need a little more weight and power to get through the bermudagrass," advises Foy, who adds that there are several good mid-weight mowers on the market.

"Ideally, you need one unit per nine holes to keep up, especially in the summertime.

## **Contracting verticutting**

A maintenance crew can only do so much in a day. When it comes to the occasional tasks which may require leasing equipment and a significant time commitment, Foy suggests you consider subcontracting.

"A lot of people contract verticutting out, which I think is a reasonable operation," suggests Foy. "It's a once- or twice-a-year process; it's reasonable to let someone else do it for you.

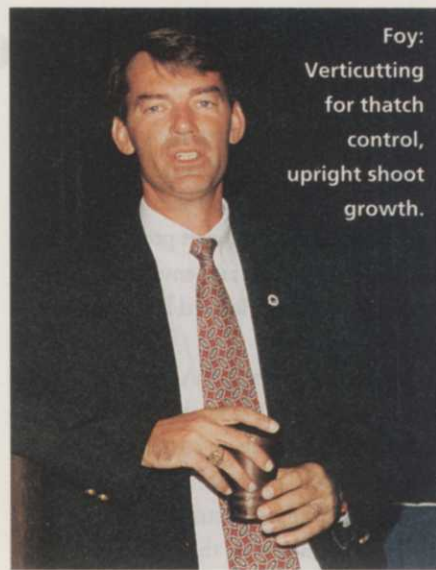
"Verticutting is an aid to thatch control," says Foy, "and a grooming aid for upright shoot growth and a good playing surface."

Foy advises lighter, more frequent verticutting—as many as three or four times during the summer growing season as opposed to once or twice—as a way to better turfgrass vigor and as a way to reduce thatch disposal problems.

## **Core aerifiers, topdressing**

Foy says deep-tine fairway aerification of six inches is more popular nowadays as well as—providing budgets permit—topdressing fairways for thatch control.

Topdressing results in improved soil conditions and a smoother, firmer playing surface, explains Foy, who proposes top-



Foy:  
Verticutting  
for thatch  
control,  
upright shoot  
growth.

dressing approaches as an added advantage to golfers whose games consist of many bump-and-run green shots.

## **Regulators reduce mowing**

Foy is a strong supporter of growth regulators for use on golf course fairways as a way to reduce mowing frequency and bring about a "tighter" turf surface.

"A three-day mowing schedule can be cut back to one or two days per week with comparable quality," suggests Foy.

Some courses have found they can at least break even with labor costs.

## **Acceptable levels**

"Use pesticides wisely," is Foy's key point when it comes to using control products.

"The USGA spent more than \$3 million over the last three years trying to access environmental impact of pesticides and fertilizer use," reports Foy. "When the materials are used properly, there is little or minimal impact. But, you've got to do it right. We'll never get away from [pest problems], so we've got to establish and maintain acceptable levels of pests.

"It is economically and environmentally impossible to eradicate any of these pests."

Foy spoke at the Florida Turfgrass Association trade show in Tampa in September. □

# GCSAA plans debate, better hours for Orlando conference next month

The Golf Course Superintendents Association of America's 1996 conference and show, Feb. 5-11, will feature what promises to be a lively debate on golf and environmental quality, hosted by Harvard law professor Arthur Miller.

Miller, legal editor of ABC-TV's "Good Morning America," is known for his skill in guiding lively debate on current and controversial issues by presenting scenarios designed to stimulate discussion.

Panel members for the debate are Tim Hiers, CGCS, Collier's Reserve Country Club in Naples, Fla.; Bill Shirk, CGCS, Queenstown Harbor Golf Links in Grasonville, Md.; and golf course designer Dr. Michael Hurdzan of Hurdzan Golf Course

Design in Columbus, Ohio.

The evening will include the presentation of the GCSAA Environmental Steward Award, and the announcement of the association's new environmental programs and initiatives.

## Better hours

The association reports that the show schedule has been improved, with better show hours and repeat seminars on popular topics.

The board of directors of GCSAA has offered a new format that will run from Monday to Sunday, instead of Monday to Monday.

According to GCSAA, most registrants leave on Sunday and miss the final day of the trade show, annual meeting, USGA

Green Section session and the banquet and show.

The expected 20,000 attendees at this year's GCSAA show will see many new exhibitors, and have better hours in which to walk the show floor. The show starts on Friday, Feb. 9, and runs until 3 p.m. on Sunday, Feb. 11.

Seven show seminars will be presented as half-day programs, as will three new technician training programs:

- Compact Diesel Engines
- Sprayer Calibration
- Irrigation Pipe Repair and Fitting.

Some seminars have been retitled to more appropriately reflect their content: Irrigation Water Quality (formerly Water Quality); Reclaimed Water Irrigation (formerly Effluent Water); Turfgrass Ecology (formerly Implementing Strategies and Plans for Turfgrass Environmental Systems); and Planting Design for the Golf Course (formerly Landscape Design and Plant Materials).

## Tour Disney golf

The Turfgrass Tour will include a look at Walt Disney World's golf and recycling facilities, its compost center, landscape and garden areas and sports field construction site.

Other tour stops include Grand Cypress Golf Course and the Scotts Co. Florida Research Facility.

## Allied presentations

Several of GCSAA's allied associations—The American Society of Golf Course Architects, the American Zoysiagrass Association, the Society of Golf Appraisers, The National Golf Foundation, and the USGA—will present programs on Feb. 10-11.

The Wednesday, Feb. 7 keynote speech will be given by Lou Holtz, head football coach at the University of Notre Dame. □

## 1996 GCSAA Conference and Show

### TRADE SHOW HOURS

	OLD	NEW
Distributor preview	Friday afternoon	Friday morning
Members only	—	Friday afternoon
Open hours: Saturday	9 a.m.-5 p.m.	9 a.m.-5 p.m.
Open hours: Sunday	9 a.m.-5 p.m.	9 a.m.-3 p.m.
Open hours: Monday	9 a.m.-1 p.m.	closed

### EVENT

	OLD	NEW
Golf Championship	Monday-Tuesday	same
Seminars	Monday-Thursday	same
Opening session	Thursday evening	Wednesday evening
Environmental General Session	Sunday morning	Thursday evening
President's Reception	Sunday evening	Friday evening
Banquet & Show	2nd Monday evening	Saturday evening
Annual meeting	2nd Monday morning	Saturday morning
Concurrent sessions	Friday, all day	Friday & Sunday morning
Friends of Foundation Recp.	Sunday afternoon	Saturday afternoon
Architects Session	Sunday afternoon	Saturday morning*
USGA Green Section Session	2nd Monday afternoon	Sunday afternoon

\*tentative

# Herbicide efficacy linked to weather

by JEFF LEFTON/Mainscape, Inc.

**N**umerous factors influence the success or failure of a broadleaf herbicide application. Salt formulations, for instance, are more influenced by environmental factors than ester formulations. Look at the label to determine if the formulation is a salt or ester.

The environmental conditions that influence performance are air and soil temperature, light intensity, wind, rain fall after the application, drought stress, relative humidity and dew formation. Usually, more than one factor combined will determine the success or failure of a broadleaf herbicide application.

## Air and soil temp

Spring broadleaf herbicides will not be effective if night temperatures are below freezing. Scientific data suggests that esters can be used in the mid-spring when:

- nighttime temperature stays above 32 degrees F;
- the soil temperature is above 45 degrees F;
- daytime temperature is above 45 degrees F;
- after 110 units of Growing Degree Days (base=50 degrees F).

Scientific data also suggests that salt formulations will become more effective when:

- the soil temperature stays above 55 degrees F;
- the air temperature is above 60 degrees F;
- after 150 units of Growing Degree Days (base=50 degrees F).

University data suggests that fall applications do not require using esters in cooler weather. The reason for this is the high soil temperature. In general, for fall broadleaf weed control applications, you can expect actual weed control in the late fall or the following spring. For very late fall applications, the herbicide is absorbed and translocated. However, symptoms and death will not be apparent until the following spring.

## Ambient factors

**Light** generally enhances the phytotoxicity of broadleaf herbicides by increasing the absorption and translocation of sugar compounds. The broadleaf herbicide is transported with the sugar compounds in a piggy-back fashion. Sunny conditions usually result in greater herbicide activity than cloudy, overcast skies. Broadleaf weeds

translocate a great amount of sugar compounds in the fall downward. Because of that, fall weed applications will normally result in a broader range of broadleaf weed control.

**Wind** dries the herbicide on the leaf surface. Maximum uptake of a herbicide on the leaf surface depends on the length of time it remains on the surface in a liquid state. Wind can dry out the solution, and limit up-

take by plants.

Salt formulations are more adversely affected by rainfall soon after the application than esters.

A rain-free period of four hours after the application is best for the efficacy of most salt-formulated herbicides.

Broadleaf herbicides are usually less effective in controlling drought-stressed plants than actively growing, unstressed plants because herbicide absorption and translocation is drastically reduced.

The absorption of salt formulations is greatly influenced by the **relative humidity** for up to 24 hours after the application. Herbicides are absorbed as liquids. High relative humidity will help keep the upper leaf surface hydrated, for better penetration of amine salts. The herbicide remains wetter on the leaf surface for a longer period of time, and more is absorbed.

**Dew formation** the day after the application will normally help increase herbicide penetration from salt formulations. Dew can re-dissolve the salt herbicide on the leaf surface. This increases the chance for additional absorption. Esters cannot be re-dissolved with dew.

**Surfactants** may help under extreme circumstances. An example would be continued misty weather in the spring. A 0.5% solution could allow the herbicide a chance to hold on the surface and be absorbed under these very specific conditions.

A late summer application of a broadleaf weed control may not be very effective. In many cases, the weather may still be dry, even with cooler temperatures. In addition, many of the broadleaf weeds have not germinated. The late fall fertilization round could actually grow more weeds due to poor timing of the last application. Lawns properly treated with a herbicide in the fall should be somewhat weed-free the following spring.

—The author is a certified professional agronomist. He is director of marketing for Mainscape, Inc., Fishers, Ind.



Maximum uptake of herbicide on the leaf surface depends on the length of time it remains liquid on the surface.

## SUPPLIERS CORNER

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**Lesco Inc.** has purchased the Pro-Lawn Division of Agway Inc., a Syracuse, N.Y.-based agricultural cooperative. Pro-Lawn supplies professional turf-care products to golf courses and commercial landscapers in 16 states.

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Trevor Thorley has been named director of specialty products for the agriculture division of **Bayer Corp.** He will be responsible for overseeing the turf and ornamental and pest control businesses as well as the introduction and growth of Premise and Merit insecticides. Thorley was named director after Allen Haws decided to retire.

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**Ciba Turf & Ornamentals International** has extended its

agreement with the Golf Course Superintendents Association of America (GCSAA) to sponsor an international lounge at this year's GCSAA Convention and Show. Ciba will sponsor the lounge, in which interpreters are available, for the next three years.

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The Tony Butler Golf Club team from Rancho Viejo, Texas, won the ninth annual international **John Deere** Team Championship Golf Tournament at Wild Wing Plantation, Myrtle Beach, S.C. Members of the team: superintendent Richard Flores, professional Randy Walker, director Michael Murphy, city commissioner Dr. James Rowe and Deere distributor Chad Mobley. They beat 30 other teams.

The Pebble Beach (Calif.) Company has signed two exclusive agreements with turf equipment manufacturers. **Ran-somes** is new exclusive supplier of turf maintenance equipment, and **Rain Bird's Golf Division** will renovate Pebble Beach's irrigation system. The agreement with Ran-somes is for three years. Rain Bird, meanwhile, will also provide technical support for five years. Both agreements were consummated by Pebble Beach vice president Ted Horton.

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**Rain Bird** also promoted Janet Bednarski from the Golf Division's marketing program manager to satellite controller product manager, and named Mindy Donenfeld Liron as rotor brand manager.

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David Woods is new chief operations officer for **The Charles Machine Works**, manufacturer of Ditch Witch products. He will oversee product development, manufacturing, marketing, and parts and service. Kurt Andrews will succeed Woods as director of marketing.

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Curtis Clark has been promoted to sales manager for **American Cyanamid's** Turf, Ornamental and Pest Control Group. The former market manager for Cyanamid's consumer lawn and garden products will oversee sales for consumer and professional products.

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Bob Yarborough is new northern division professional products manager for **Terra International's** turf and ornamental business. Yarborough has worked in the industry for 17 years, most recently as a vice president at Lesco.

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**Alamo's** new national sales manager is Jack McKay. He has been in various managerial positions with Manitex, Cloverdale Equipment and Depco Equipment.

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Gene Hintze is new turf and ornamental business manager for **Sandoz Agro's** Specialty Business Unit. Hintze will be responsible for establishing the overall direction, planning, implementing, monitoring and analyzing the company's marketing efforts in the turf and ornamental industry. In addition, Terri Lohmann, recent recipient of the Sandoz Presidential Award, was promoted to marketing services manager.

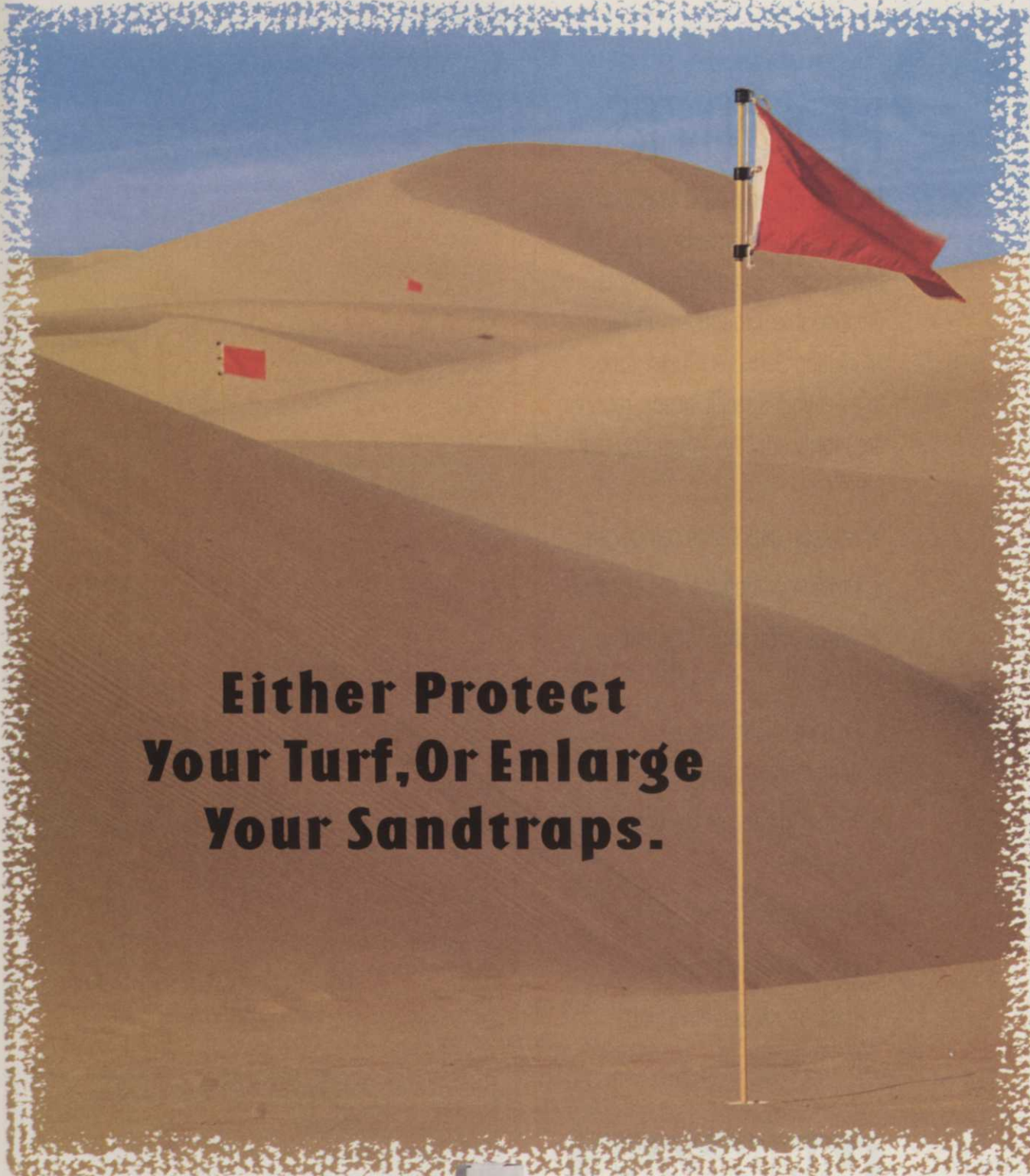
# Info center

## VIDEOS AND LITERATURE FOR THE GREEN INDUSTRY

**FOR SMALL BUSINESSMEN...**A fully revised and updated edition of "Small Time Operator" by accountant Bernard Kamoroff has just been published. The book tells how to start your own small business, keep your books, pay your taxes and "stay out of trouble." The 224-page book has more than 500,000 copies in print. Price is \$16.95. For more information: Bell Springs Publishing, (707) 984-6746.

**INSECTS BEGONE...**The "Handbook of Turfgrass Insect Pests" from Drs. Rick Brandenburg and Michael Villani includes 60 color photos, 58 illustrations, a directory of services for obtaining local information and a glossary. Price is \$30, plus \$2.50 shipping and handling in the U.S. Send prepaid orders to ESA Sales, P.O. Box 177, Hyattsville, MD 20781. Send credit card orders to: ESA Sales, 9301 Annapolis Rd., Lanham, MD 20706. Foreign orders, more information or charge-by-phone: (301) 731-4535.

**TENDER LAWN CARE...**"The Handbook of Successful Ecological Lawn Care" is now available from the Edaphic Press, P.O. Box 107, Newbury, VT 05051. The 284-page soft-cover book is written by Paul D. Sachs. It "enables the reader to make common sense decisions about turf problems that can reduce the need for pesticides." Price is \$18.95 plus \$1.75 postage and handling. More information: (802) 222-4277.



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# Events

## FEBRUARY

**1-3: Turfgrass Producers International Midwinter Conference**, Austin, Tex. Phone: (800) 405-8873 or (708) 705-9898.

**4-6: The Fertilizer Institute Annual Meeting**, San Antonio, Tex. Phone: (202) 675-8250.

**5-6: Illinois Landscape Contractors Assn. Landscape Foreman Training**, Holiday Inn, Willowbrook. Phone: Julie Nicoll, (708) 932-8443.

**5-11: International Golf Course Conference & Show**, Orange County Convention Center, Orlando, Fla. Phone: (800) 472-7878.

**6-8: Landscape Contractors Association MD/DC/VA Winter Workshop**, Bethesda Marriott, Md. Phone: (301) 948-0810,

**8: Northeastern Pennsylvania Turfgrass & Maintenance School**, White Haven. Phone: Andrew McNitt, (814) 863-1368.

**11-14: Associated Landscape Contractors of America's Executive Forum**, Phoenix, Ariz. Phone: Elise Lindsey, (703) 620-6363.

**13-14: Ohio Associated Green Industries Winter Conference**, John S. Knight Center, Akron. Phone: (614) 263-9311.

**19-20: Michigan Irrigation Association/Irrigation Association Troubleshooting classes**, Grand Rapids, Mich. Phone: (703) 573-3551.

**20-22: Illinois Landscape Contractors Assn. Winter Seminar**, Lisle. Phone: Julie Nicoll, (708) 932-8443.

**22-23: Michigan Irrigation Association/Irrigation Association Troubleshooting classes**, Traverse City, Mich. Phone: (703) 573-3551.

**25-27: Wisconsin Landscape Federation Winter Convention**, American Club, Kohler. Phone: (414) 529-4705.

**27: Tree Insect, Disease and Rootzone/Soil**, Southfield (Mich.) Civic Center. Phone: Michigan Arborist Association, (800) 622-4055.

**27-28: Advanced Turf Management Symposium**, Rutgers Cooperative Extension & Cook College. Phone: (908) 932-9271.

**27-29: Western Pennsylvania Turf Conference & Trade Show**, Pittsburgh Expomart, Monroeville. Phone: (814) 355-8010.

**28: New Jersey Landscape '96 Trade Show & Conferences**, Meadowlands Exhibition Center, Secaucus. Phone: Skip Powers, (201) 664-6310.

## An off-season questionnaire

### Finance

- In 1995, were you ahead or behind budget in sales?
- Were costs over or under budget?
- Was labor a higher percentage of revenue than budgeted?
- How close were fuel and other vehicle costs to budget?
- How often is your budget compared to actual?
- What months are anticipated to be the tightest for cash?
- What financial planning is in place to overcome the cash obstacle?
- How willing is the bank to work with you?
- What overhead expenses can be reduced or eliminated if necessary?
- Which costs could be eliminated without sacrificing quality?
- Will revenue lost in the first six months be recovered?
- Why is the profit projection achievable this year?

### Personnel

- What motivates your employees?
- What types of incentives work best?
- How thorough are your training programs? Are people making the same mistakes over and over again?
- How significant is the difference between the best and the worst employee?
- Are the more experienced employees still improving each year?

### Marketing

- Do you actively seek feedback from customers about your service?
- Do you check on each customer at least once during the year?
- What is your retention rate compared to last year?
- How much new business is being sold due to referral leads?
- What improvements have been made to your vehicles over the winter?
- How well are vehicle maintenance reports charted?
- How can the vehicles be over the course of 1996?  
(For contractors only)
- Who is the target market for new business?
- What new niches will you try to enter in 1996?
- Is the telemarketing script the right length?
- How many calls will be placed each day, week and month?
- What is your retention rate on telemarketing sales from prior years?

cont. from page 18

your employees' 1993 and 1994 performance against their 1995 performance. Improved efficiency, quality of work and professionalism are all key areas to assess when you evaluate personnel.

### Marketing isn't advertising

Customer service, pricing, demographics, consumer psychology, persuasion and sales—along with advertising—are but a few components of an effective marketing plan. To be prepared with alternative solutions when a new issue arises, you need to become familiar with each area of marketing.

Marketing allows you and your staff to be creative in finding ways to come up with a plan. Through proper training, your marketing plan may be simplified and you might achieve quicker results.

Waiting for the snow to melt and the sun to shine to implement your 1996 marketing plan will allow your competitors to get a jump on you—and being one step behind the competition is *not* the way to start the new year.

In 1995, many companies in this industry went "back to basics" to attract new or retain existing customers (including golfers). If you develop your marketing plan by listening to customers and drive toward customer satisfaction, your plan will be much simpler and probably more effective.

The following marketing tools work.

**Customer communication—**  
Communication is an opportu-

nity to attract or retain customers. Once someone becomes a customer, feedback from that person is crucial. Whether a commercial or residential account; a senior golfer, club member or junior, customers can provide referrals for up to 10 new prospects. It's crucial to know how satisfied or dissatisfied your "customers" are.

**Vehicles—**A common mistake is the little value that is placed company vehicles. They offer an excellent means to reach both the target market and unsure customers.

Because vehicles are traveling billboards, they tell a community how professional you and your employees are. For contractors, displaying colors, logo and/or telephone number on the vehicle will help promote your company.

**Telemarketing** (contracted services only)—It's very difficult to measure the effectiveness of telemarketing, which may begin with a phone call and progress to direct contact when the sale is near the closing.

If you use telemarketing after a sequence of direct mail pieces or other inquiries, telemarketing will achieve significantly better responses than a "cold" call. **LM**

—Ed and Aaron Wandtke of Wandtke & Associates, 2586 Oakstone Dr., Columbus, OH 43231, provide a variety of business consulting services to the green industry. For more information, phone them at (614) 891-3111 or fax them at (614) 891-7698.



## Utility trencher comes with productive blade

Vermeer's V-8550 rubber-tire utility trencher is now available with a 6- or 8-way backfill blade, each of which is designed to make restoration work easier and more productive.

The standard 6-way blade features joystick-controlled hydraulic lift and tilt for smooth operation. A float position on the lift function allows for smooth back-dragging and easier cleanup. The heavy-duty 8-way blade is designed for more rugged conditions and adds side-shift capabilities, allowing operators to move it left or right outside of the tire line.

The V-8550 has a four-cylinder 85 hp Cummins diesel engine. Other varied attachments from vibratory plow to backhoe to rock wheel are available.

Circle No. 292

## New weed-killer acts immediately

Scythe non-selective, non-systemic contact herbicide from Mycogen Corp. that makes short work of weeds. According to Mycogen, weeds begin to show the effects of an application

within a few minutes, and are often completely brown within a few hours.

Because it is made from a naturally-occurring fatty acid that quickly dissipates in the soil, and because it knocks down a broad spectrum of weeds, it can be used practically anywhere, Mycogen contends. In addition, there is no soil residual activity, so it can be sprayed on seedbeds and in flower pots. Since it only affects green plant tissues, Scythe is said to be ideal for cleaning up weeds around



shrubs, trees and other ornamentals.

Scythe can also be used to "turbocharge" glyphosate, Mycogen says. Adding Scythe to your glyphosate mix, results in fast action combined with long-term systemic activity.

Circle No. 293

## Complete line of turfseed for all uses

Terra International introduces a complete line of turfseed for virtually all lawnscapes uses. The products:

\*Affinity perennial ryegrass: excellent mowability, pest resistant, attractive color and texture; for seeding and overseeding golf courses, commercial lawns, athletic fields.

\*Best Blue Kentucky bluegrass blend (Glade, Conni, Nustar, Baron): deep green, dense, durable, for high maintenance areas at country clubs and upscale lawns and estates.

\*Deepshade Mix (Pro-former, Koket, Pennlawn fescues and Glade and Baron bluegrasses): shade tolerant,

good color, disease resistant for lawns in shade

\*Fine Fescue Mix (Eureka, Proformer, Koket, Pennlawn): low maintenance, beautiful color, for sun or shade.

\*Fairway Blend (Affinity, Stallion Select, Patriot II ryes and Nustar, Baron, Conni blues): genetically diverse, proven performer, economical for golf course fairways.

\*Median Mix (Fulfs alkaligrass, Pennlawn fescue, Baron blue, Affinity rye): salt tolerant, drought tolerant, winter hardy for low maintenance areas.

\*Special Mix (Park blue, Rodeo II rye, creeping red fescue): low maintenance, eco-

nomical, versatile for parks, home and commercial lawns, golf course roughs

\*Sports Quality (Affinity, Patriot II, Stallion Select ryes, Nustar, Baron, Conni blues): durable, great recovery ability, easy to establish for playing fields.

\*RyteRye (Affinity, Stallion Select, Patriot II ryes): attractive, durable, quickly established for overseeding athletic fields and golf courses.

\*Turf Blue (Newport, Park, Argyle blues): great value, durable, versatile for low maintenance, low cost.

\*Utility Turf Mix (Baron, Conni, Merit blues and Affinity, Stallion Select ryes): versatile, hardy, eye-appealing for

renovating older existing turfs

\*Watertight (Avanti, Taurus, Wrangler tall fescues): excellent disease resistance and color, good leaf texture for home lawns, industrial sites, medians and parks, especially in the transition zone.

\*Watertight 10, Watertight Plus (Avanti, Taurus, Wrangler tall fescues, Gnome blue), Watertight + Rye (Avanti, Taurus, Wrangler tall fescues, Affinity rye): summer density, good leaf texture, superior disease resistance for low maintenance sports turf, commercial turf or home lawns, including transition zone.

Circle No. 294



## Lean, mean trimmer is powerful and light

The new Green Machine 2600h hedge trimmer is powerful, well balanced and lightweight, according to its manufacturer. It can cut through branches as large as one inch in diameter.

Equipped with a 30-inch, single-side, double-reciprocating blade, the Green Machine 2600h provides excellent control, reach and ease of operation for commercial users, Green Machine says, and the high-speed blade (34 rpm) provides smooth cutting power and optimum productivity.

The 2600h is powered by a 26.1cc Mitsubishi full crankshaft engine built for commercial use and long life.

Circle No. 295



## Irrigation wires are rodent-proof

Paige Electric Corp. now offers a special type of irrigation wire to thwart gophers and other rodents, which will normally chew away the insulation of wires of an irrigation system and expose the conductors to the wet environment.

When a rodent chews through a wire, electrical shorts can blow controller fuses or "kick" circuit breakers.

The Paige rodent-proof wires and cables are now available in 10-, 12-, and 14-gauge to solve this problem. These products are constructed with UL-listed wires (with either PVC or PE insulation), a stainless steel tape armor, and a sunlight resistant PVC outer jacket.

Circle No. 297

## All-organic products help out environment

Menefee Humate products—the decomposed remains of ancient tropical plants, animals and marine life—are environmentally safe. They reduce costs and lower overall budgets, according to their manufacturer, Earthgreen Products.

According to Earthgreen, the Menefee Humate products also increase water retention so less watering is required, and yield better mulching and recycling of grass clippings. They can aerate tight clay, but also cement loose sand, speed up decomposition of thatch layers and enhance seed germination and survival, Earthgreen says.

Products available to the green industry: granular Menefee Humate organic soil conditioner, Menefee Humate blended products, Menefee 624+Iron organic-based fertilizer, Menefee Humate organic filter medium.

Circle No. 296



## An old dependable in a new formulation

A new formulation of Roundup herbicide called Roundup Pro offers several improvements for industrial, turf and ornamental professionals.

The improvements include better "rainfastness" and quicker burn-down; increased worker safety; and improved cost-effectiveness. Sales director Susan Recknagel says surfactant, an option in the past, has been added to Roundup Pro. And, in most cases, the product should dry enough to withstand rain in one to two hours, she says.

Circle No. 298

## >PRODUCT REVIEW

### More weeds added to popular herbicide

Barricade pre-emergence herbicide now offers an even broader spectrum of weed control with a new expanded



label, Sandoz Agro says.

In addition to crabgrass, goosegrass and annual bluegrass, other weeds now labelled for control: crowfootgrass, Florida pusley, itchgrass, junglerice, kochia, lovegrass, mouseear chickweed, panicums, Persian speedwell, sprangle-top, witchgrass and wooly cupgrass.

Barricade's superior residual lasts up to 26 weeks, Sandoz says, using as little as one-fourth the active ingredient required with other pre-emergence herbicides. It has a low water solubility level and is non-staining. Barricade comes in convenient water-dispersible granules or on-fertilizer formulations.

Circle No. 299

### First EPA-approved biological fungicide

Bio-Trek 22G, the first EPA-approved biological turf fungicide, was introduced at the 1995 GCSAA show in San Francisco. It is a highly effective strain of *Trichoderma harzianum* fungus, in granular form, from Wilbur-Ellis Co. It is non-toxic and non-pathogenic to vertebrates and plants, and will not contaminate groundwater.

Effective in reducing dollar spot, pythium and brown patch, Bio-Trek 22G also enhances root growth and increases plant vigor, according to Wilbur-Ellis. This particular strain of fungus, more effective than natural strains, is formulated for maximum efficiency. It colonizes on roots and soil very quickly after application.

Circle No. 300

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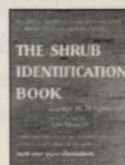
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Circle 108

## New engines have distinctive styling

Distinctive styling marks the new line of Spectra engines from Tecumseh Products Co. The full-shroud engines are available in 40, 45, 50 and 55 models. They include replaceable paper air cleaners and a mechanical compression release.



The quick-start fuel primer guarantees fast, sure starts. It's conveniently located on the carburetor for each use. The Spectra engines also have an electronic capacitor discharge (CD) ignition system and a commercial-style mechanical governor that instantly responds to varying mowing conditions, ensuring a consistent engine cutting speed.

Circle No. 301

## A 'better spreader' for turfgrass professionals

The PrecisionPro rotary spreader, new from the Scotts Co., is durable, accurate and easy to use. Constructed of linear low-density polyethylene, the spreader will not rust. To reduce the risk of interference from external factors, the heavy-duty gearbox and controls are enclosed.

The PrecisionPro's patented helical cone, which can be adjusted for product density, assures an ultra-accurate and even spread pattern up to 16 feet, Scotts says. Auxiliary shut-off and side deflectors are controlled instantly by one convenient lever. Its large hopper holds up to 85 lbs. and includes a strainer screen and rain cover.

The dual-grip handle—whose shape conforms to the body for extra leverage—was designed for comfort and maneuverability.

Circle No. 302

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Circle 104

Every month the Market Showcase offers the 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.

# LANDSCAPE management

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April 1996	3/5
May 1996	4/4
June 1996	5/6
July 1996	6/4
August 1996	7/2
September 1996	8/6
October 1996	9/4
November 1996	10/4
December 1996	11/6

(Please call Sales Rep to confirm dates.)

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LANDSCAPE MANAGEMENT each month:  Yes  no

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

**1. MY PRIMARY BUSINESS AT THIS LOCATION IS: (check only ONE in either A, B or C)**

**A. LANDSCAPING/GROUND CARE AT ONE OF THE FOLLOWING TYPES OF FACILITIES:**

- |   |  |
|---|--|
| 01 <input type="checkbox"/> 05 Golf Courses   | 08 <input type="checkbox"/> 40 Private/Public Estates & Museums                            |
| 02 <input type="checkbox"/> 10 Sport Complexes  | 09 <input type="checkbox"/> 45 Condominiums/Apartments/Housing Developments/Hotels/Resorts |
| 03 <input type="checkbox"/> 15 Parks  | 10 <input type="checkbox"/> 50 Cemeteries/Memorial Gardens                                 |
| 04 <input type="checkbox"/> 20 Rights-Of-Way, Maintenance for<br>Highways Railroads & Utilities | 11 <input type="checkbox"/> 55 Hospital/Health Care Institutions                           |
| 05 <input type="checkbox"/> 25 Schools, Colleges & Universities                                 | 12 <input type="checkbox"/> 60 Military Installations & Prisons                            |
| 06 <input type="checkbox"/> 30 Industrial & Office Parks/Plants                                 | 13 <input type="checkbox"/> 65 Airports  |
| 07 <input type="checkbox"/> 35 Shopping Centers, Plazas & Malls                                 | 14 <input type="checkbox"/> 70 Municipal Government/Municipal Facilities                   |
|   | 15 <input type="checkbox"/> Other (please specify) _____                                   |

**B. CONTRACTORS/SERVICE COMPANIES/CONSULTANTS:**

- |  |   |
|--|---|
| 16 <input type="checkbox"/> 105 Landscape Contractors (Installation & Maintenance) | 20 <input type="checkbox"/> 125 Landscape Architects                          |
| 17 <input type="checkbox"/> 110 Lawn Care Service Companies                        | 21 <input type="checkbox"/> 130 Land Reclamation & Erosion Control            |
| 18 <input type="checkbox"/> 112 Custom Chemical Applicators (Ground & Air)         | 22 <input type="checkbox"/> 135 Extension Agents/Consultants for Horticulture |
| 19 <input type="checkbox"/> 120 Tree Service Companies/Arborists                   | 23 <input type="checkbox"/> 140 Irrigation Contractors                        |
|  | 24 <input type="checkbox"/> Other Contractor or Service _____                 |

**C. SUPPLIERS:**

- 25  210 Sod Growers, Turf Seed Growers & Nurseries  
26  215 Dealers, Distributors, Formulators & Brokers  
27  220 Manufacturers

**2. WHICH OF THE FOLLOWING BEST DESCRIBES YOUR TITLE? (check ONE only)**

- 28  10 EXECUTIVE/ADMINISTRATOR: President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant  
29  20 MANAGER/SUPERINTENDENT: Arborist, Architect, Landscape/Ground Manager, Superintendent, Foreman, Supervisor  
30  30 GOVERNMENT OFFICIAL: Government Commissioner, Agent, Other Government Official  
31  40 SPECIALIST: Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist  
32  50 OTHER TITLED AND NON-TITLED PERSONNEL: (please specify) \_\_\_\_\_

**3. SERVICES PERFORMED: (check ALL that apply)**

- |  |   |
|--|---|
| 33 <input type="checkbox"/> A Mowing               | 41 <input type="checkbox"/> I Landscape/Golf Design             |
| 34 <input type="checkbox"/> B Turf Insect Control  | 42 <input type="checkbox"/> J Turf Weed Control                 |
| 35 <input type="checkbox"/> C Tree Care            | 43 <input type="checkbox"/> K Paving, Deck & Patio Installation |
| 36 <input type="checkbox"/> D Turf Aeration        | 44 <input type="checkbox"/> L Pond/Lake Care                    |
| 37 <input type="checkbox"/> E Irrigation Services  | 45 <input type="checkbox"/> M Landscape Installation            |
| 38 <input type="checkbox"/> F Turf Fertilization   | 46 <input type="checkbox"/> N Snow Removal                      |
| 39 <input type="checkbox"/> G Turf Disease Control | 47 <input type="checkbox"/> O Other (please specify)            |
| 40 <input type="checkbox"/> H Ornamental Care      |   |

**4. WHAT IS YOUR ANNUAL BUDGET FOR EQUIPMENT, CHEMICALS, SUPPLIES? (please check one)**

- |   |   |
|---|---|
| 48 <input type="checkbox"/> 1 Less than \$50,000  | 51 <input type="checkbox"/> 4 \$250,001-500,000   |
| 49 <input type="checkbox"/> 2 \$50,000-\$100,000  | 52 <input type="checkbox"/> 5 More than \$500,000 |
| 50 <input type="checkbox"/> 3 \$100,001-\$250,000 |   |

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



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*management*

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# LANDSCAPE management

ADVANSTAR COMMUNICATIONS INC  
PO BOX 5054  
PITTSFIELD MA 01203-9697



# LANDSCAPE management

## JANUARY 1996

This card is void  
after March 15, 1996

NAME \_\_\_\_\_  
TITLE \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
PHONE (\_\_\_\_) \_\_\_\_\_ FAX (\_\_\_\_) \_\_\_\_\_  
HAVE A SALES REP CALL ME 18  (A)

I would like to receive (continue receiving)

LANDSCAPE MANAGEMENT each month:  Yes  no

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

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117	135	153	171	189	207	225	243	261	279	297	315
118	136	154	172	190	208	226	244	262	280	298	316



# PERFORMANCE PLUS



**with 100 HP TURBO and FOUR WHEEL DRIVE**



## **FOUR WHEEL DRIVE "GO" POWER**

Now, with the addition of optional 100 HP Turbo and Four Wheel Drive, the HYDRO POWER 180 is the ultimate in large capacity mowing performance.

Mow up to 17 acres/hour with the HYDRO POWER 180 hydraulically powered deck system — three individual decks cover up to 198" cut.

The 100 HP Turbo-charged Cummins diesel engine offers added power on demand — no need to slow ground speed while mowing in dense turf conditions. The extra power also provides a top quality cut and excellent clipping distribution.

The Four Wheel Drive allows increased production in areas previously inaccessible to large rotary mowers. Superior traction and hill climbing ability are available with just the flip of a switch.



## **YEAR-ROUND VERSATILITY**

The Variable Speed Eaton Transmission (204 HP rated) affords the operator complete ground speed control. The operator can set the mowing speed to meet individual mowing conditions and not be restricted by a two-range system as on some competitive models.

The Two Stage Snowblower and Heated Cab provide year-round versatility.

The HYDRO POWER 180 just leaves the competition behind when it comes to performance.



## **EASY-FOLDING CUTTING UNITS FOR TRANSPORT**

18155 Edison Avenue



Chesterfield, MO 63005

Circle No. 115 on Reader Inquiry Card

**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.



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