GIVE IT A DIVOT!

PENNWAY BLEND IS A HIT IN DES MOINES WHERE SUMMERS ARE HOT AND MEMBERS DEMAND PERFECTION.

"When the membership at Wakonda Club in Des Moines voted to replace their bluegrass/poa fairways with creeping bentgrass, I wasn't certain of its availability. Leon Williams from Williams Lawn Seed assured me that he could get an adequate supply of Pennway blend from Tee-2-Green Corp. in Oregon. I knew Tee-2-Green for quality Penn products, but I wasn't positive about Pennway. When I found that Pennway is 25% Oregon certified Penncross, 25% certified Penneagle and 50% creeping bent also from Tee-2-Green, I elected to use it over other bent blends available.

After one year, our fairways look superb and the membership raves. With our maintenance program, we have had no problem with thatch buildup, and we find that Pennway requires less water than our old bluegrass/poa fairways ... an important factor considering our droughty summer. Pennway? Yes. Give it a divot!"

Warren Bidwell is available to speak to your superintendents' group about Penn bentgrasses. Call our toll free number for details. TEE-2-GREEN Corp., PO Box 250 Hubbard, OR 97032

Circle No. 142 on Reader Inquiry Card
Another banner year for Betasan.

Once again, most of the country’s top courses chose BETASAN.

Perhaps that’s because top superintendents know that BETASAN® herbicide is more effective, safer and longer lasting than all other crabgrass controls, including Dacthal* and Team**

Or, maybe the reason is Betasan is the only preemergent crabgrass control that’s safe for bentgrass and all other turfgrasses, including established bluegrass, fescue, perennial, annual rye, bermudagrass, Zoysia, bahia, centipede and St. Augustine.

Either way, for over 20 years Betasan has been earning the trust of the most demanding and knowledgeable golf course superintendents in the country.

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BETASAN is available in liquid formulation, as well as granular, to match any application need you may have.

For more information contact your local supplier, or call ICI Americas at 1-800-759-2500.

BETASAN

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*Dacthal is a registered trademark of Fermenta Corp.
**Team is a registered trademark of Elanca.

BETASAN is also marketed professionally under the trade names Bensumec, Pre-San and Lescosan.

Circle No. 117 on Reader Inquiry Card
How to handle

With the Hardbody’s double-wall seamless construction and rust-resistant cargo bed, you don’t have to worry when things pile up.

Want to take it with you? Better get a Hardbody King Cab® 4x4. Its powerful engine lets you tow up to 3,500 pounds.

Who says cab rides have to be uncomfortable? Not Nissan. Our trucks have plenty of headroom and legroom.
You can carry the weight of the world with a Hardbody V6. It has a 2,000 lb. payload and the largest cargo volume of any leading compact truck.

If job demands have you on edge, maybe it's time to seek some help. The kind that you can get only from Nissan® Hardbody™ trucks.

Not only can they handle the daily abuse that's a part of doing business, they also do well over the long haul. Keeping maintenance costs, downtime and your blood pressure much lower.

And Hardbodies are available in a variety of configurations, all known for reliability, quality and longevity. With as much as 300,000 miles of use reported*

If you're ready to do something about the pressures of your business, talk to a Nissan Fleet Representative. Just call 1-800-323-5313 to locate the one in your area.

And make carrying a heavy workload a lot easier to deal with.

Standard on some models, a 3.0-liter fuel-injected V6 engine has 145 horsepower. Enough to get you through almost anything.


*Based on reports of customer use.
Cover Story: The Customer as King
by Will Perry, managing editor.

Today's saturated lawn care market
demands that LCOs work harder
to keep their customers happy.

Compact Tractors
by Jeff Moehle. The versatility
and flexibility of compact
tractors make them ideal
for budget-minded landscape
managers.

Nailing the Culprit
by Jay Holtzman, contributing editor.
With an efficient
equipment tracking system,
those lost and broken hand tools
swiftly become a thing of the past.

Clearing Profits with the Snow
by Jerry Roche, editor. The work
is difficult and the hours long,
but landscapers are making the necessary efforts—and
money—from snow removal.

Landscaper Manager of the Year
In getting the most out of his personnel and equipment, Roy
Peterman made the Brigham Young University campus a
model of good management.

Love That Dirty Water...
by Jeff Sobul. Improvements in treatment have made reclaimed
wastewater a viable source of irrigation water, and a way to
conserv[e]e valuable freshwater supplies.

The Cost of Layoffs
by Rudd McGary and Ed Wandtke. To layoff or not to layoff?
With the winter season coming up, it could increase your cash
flow to lay off some employees until spring. But, in the long
run, you may lose some customers next year.
Quality Turf Products Green-Up Your Bottom Line

Lawn renovation can be a profitable addition to an LCO's services, but like other programs, satisfied customers are the key to continued success. Along with professional technicians, proper equipment and timely service, the grass seed used make the long lasting impression that creates referrals. And Turf-Seed, Inc. has the premium quality seed for your program ... in your region. Ask for these products by variety name ... because it's really your name that's on the line.

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Tall Fescues
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Perennial Ryegrasses
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Circle No. 144 on Reader Inquiry Card
On being proud of your job

“There are a lot of great superintendents in the country.”
These words from Milwaukee Country Club’s Danny Quast, a superintendent himself, start the juices flowing. And there are a lot of other great landscape managers in the country, too. In my six years in the green industry, I’ve certainly met my share at conventions and in other travels across the land.

“You have to love this business and you have to be motivated,” the likable Quast told me this summer, right in the middle of the driest, hottest drought in decades. “The members don’t expect as much out of me as I do.”

And that’s the key.
If this is beginning to sound like a pep talk, maybe it is. Every once in a while, we all need a pep talk. A little “Vince Lombardi” to remind us that we’re proud of what we’re doing.

Just what is it that you’re doing? You’re beautifying our country. You’re making it a pleasure for others to go to work. You’re making it fun to take the kids outside on a nice spring day and roll around in the grass. You’re making it a treat to take a day off from work and play a few holes of golf. In your own special way—think about this—you’re making people more fully appreciate life.

And you’re having fun doing it. You’re not chained to a desk or locked in a room with a computer terminal. You, generally, are outside in the warm sunshine when many others are chomping at the bit to be unleashed.

Ken Erman is building supervisor at Edgell Communications. He is, typically, one of you. As he approaches retirement, he tells the story best.

“I’ve been at this all my life. I worked on a farm from the time I was nine. This was my life. I couldn’t get enough of work.”
Was it hard work, Ken?
“There are hard aspects. But it was worth it to see the product.
To see the results.
“Maybe it’s hereditary. My dad was a great one for flowers.”
You’re a landscape manager. You’re historically a hard worker. Hereditary or not, you take pride in seeing the final product. Thank you, one and all. And keep up the good work.

Jerry Roche, editor
BEHIND EVERY GREAT PERFORMER IS A GREAT COACH

Onan builds winners by building winning relationships with equipment manufacturers. Partnerships based on common goals and dedication to customer service. Great performance, great teamwork. An unbeatable combination.

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Circle No. 271 on Reader Inquiry Card
Seed prices could escalate if legislation to limit field burning is passed in Oregon

Oregon seed farmers have been “feeling the heat” lately. Field burning, a key part of turfseed growing operations, was cited as the cause of a horrifying traffic accident on Oregon’s I-5 in August. Heavy smoke from the field blew across the highway near Albany, decreasing visibility like a curtain of heavy fog.

Shortly after the crash, in which seven people were killed and 38 injured, the Oregon Department of Environmental Quality (DEQ) banned field burning within a ¼-mile of all interstate highways. Since then, the ban has been expanded to a ½-mile “fire safety buffer zone” along I-5, with burning banned completely in the first ¼-mile of the zone. Burning in the second ¼-mile can take place only with increased state regulation. In addition, seven other highways in the state will be lined by a ¼-mile buffer zone with burning banned within the first ¼-mile.

The new rules were issued via a 180-day Administrative Order that will be in effect until mid-February. After that time, the issue will again come before the DEQ for renewal.

Ever since the accident occurred, people previously tolerant of field burning have come out in opposition to it,” says Dave Nelson, executive director of the Oregon Seed Council. The primary opponents are groups called End Noxious Unhealthy Fumes (ENUF), Oregonians for Clean Air, andResidents of Oregon Against Deadly Sprays and Smoke.

Members of these groups and others were among the 60 people present at a September public hearing where a state legislative committee heard the strongest opposition yet voiced against the 40-year-old practice of field burning. Opponents have joined forces with state Sen. Grattan Kearns (D-Eugene) in proposing legislation seeking to ban field burning.

The state’s emerging resistance to field burning has been more intense than that of the 1960s and 1970s when the state gained regulatory control of field burning and limited the practice to about 65 percent of the valley’s grass fields. The heat of the current debate led Bill Rose, owner of TurfSeed Inc., to quip: “Oregon’s seed industry is respected all over the world—every place but Oregon.”

Nevertheless, Nelson is preparing to give the seed producers their fair say. “The industry is organizing to represent itself thoroughly,” said Nelson. However, “there’s no doubt in my mind that if field burning survives these attempts at banning it, the present rules will remain.”

Dennis Glaser, a seed farmer who owns more than 5,000 acres in the Willamette Valley, agrees that the days of field burning are numbered. “I don’t know that it’s going to be this year,” he said, “but I’m not optimistic. I’d say the practice will end within the next three years.”

The challenge for farmers, says Glaser, will be to produce the quality seed people have come to expect from Oregon without the benefit of burning, which reduces the threat of diseases (such as ergot and blind seed disease) and keeps prices down.

“Our future yields will be less, that’s a given,” adds Glaser. “Burning does unexplained things to a plant. There isn’t a mechanical way we know of that would do the same thing.”

The current Administrative Order covers approximately 30,000 to 40,000 acres of seed fields. Owners of these fields may have to resort to alternative methods of field sanitation: propane burning, chemical spraying, crew cutting and bailing. All cost $50 to $70 more per acre than field burning.

Nelson and Glaser agree that a sense of urgency exists among Oregon farmers and university researchers to find an alternative to field burning.

“We’re not happy about what has happened, but don’t write us off,” adds Glaser. “We’re good learners and will do what we have to do to continue to produce the best quality seed in the world.”

—Will Perry
This card void after January 15, 1989

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LANDSCAPING

Carpenter takes on North Carolina DOT

Joe Carpenter of Landmasters, Gastonia, N.C. has filed an appeal with the U.S. Court of Appeals in his case against the state and federal departments of transportation involving minority set-aside regulations.

The case involves the federal Disadvantage Business Enterprise (DBE) regulations, which mandate that at least 10 percent of funds for public works projects be awarded to minority firms. Carpenter is challenging their constitutionality on grounds that provisions of the Surface Transportation and Assistance Act create a system of racial preferences in awarding public contracts for highway construction projects.

Carpenter, former president of the Associated Landscape Contractors of America, believes that these programs result in a system of racial quotas which prime contractors must fulfill to avoid a risk of losing federally-funded state contracts.

More than 20 lawsuits have been filed challenging the constitutionality of the 10 percent quota requirement, which was originally implemented as part of the Public Works Employment Act of 1977. In 1982, the Surface Transportation Assistance Act was passed with such a quota.

DISEASE UPDATE...Agri-Diagnostic Associates has improved its popular turf disease detection kit. Formerly, the test took 3 1/2 hours; the new test takes just 10 minutes. The kit, which uses the same technology, will be available April 1, 1989, according to Vonnie L. Estes, who is in charge of market development. For more information, write 2611 Branch Pike, Cinnaminson, NJ 08077 or call (609) 829-0110.

THEY'VE BEEN ENDO-ED...You want a perennial ryegrass with high insect-resistant endophytes present? Try these: SR 4000, SR 4100, Citation II, Commander, Dasher II, Repel or Sunrye. According to 1986 national tests conducted by C. Reed Funk, Ph.D., at Rutgers University in 1986, these varieties were highest in endophyte content.

VIDEO ARTICULATE...Mike Tanzini and Greg Frank have been selected by WXXI-TV, Channel 21 in Rochester, N.Y. to participate in “New York Lawn & Garden,” a weekly question-and-answer show. Viewers are encouraged to submit samples of problem plants and insects for diagnosis and recommendations. Along with Tanzini and Frank, cooperative extension agent Jim Wilmot answers the questions. The panel also answers call-in questions and plans several remote broadcasts from area malls for on-camera questions and answers. Tanzini and Frank, vice presidents of Ted Collins Tree & Landscape, were selected from open auditions.

DETOUR TO DISNEY...For the first time in Walt Disney World history, landscape professionals can get an in-depth look at the entire Disney World horticultural operation in the new “Landscape Magic” seminar. Experts from the Disney staff will serve as instructors and guides for the three-day seminar, which begins Jan. 29, 1989. Registration fee is $685, which includes special rates on accommodations at the Contemporary Resort. For more detailed information, write Seminar Productions, Disney World, Dept. PR, P.O. Box 10,000, Lake Buena Vista, FL 32830, or call (407) 828-1500.

OVER THE COUNTER...LawnAmerica Inc. has completed an initial public offering of its securities with South Richmond Securities Inc. as the underwriter. The offering consisted of 500,000 units priced at $3 each. Each unit consists of two shares of common stock and one common stock purchase warrant. LawnAmerica is a full-service lawn/landscape company based in Tulsa, Okla.

continued on page 14
Finally, A High Capacity Mower Doesn't Handle Little

For too long, high-capacity mowers have left a lot to be desired. But now all that has changed. Presenting the revolutionary new Groundsmaster® 580-D with an 80 hp turbo-diesel engine. The first large-scale rotary mower that combines the productivity of a 16-foot machine with the handling ease of a smaller mower.

Operating the 580-D is incredibly easy. Only Toro provides an adjustable tilt steering wheel and column. All controls are at the operator's fingertips, even cruise control.

Transport is easy too. An exclusive rotating hinge lowers the outboard cutting units behind the operator for a clear view to the side and rear. A balanced design allows you a stable 20 mph transport speed because the weight of the outboard cutting units is rotated to the rear.

Digital readouts display vital engine/machine functions at the touch of a button.

For even more versatility, the 580-D includes these accessories: an 8-foot front broom attachment, a roll over protection system, a canopy, a cab and a road light package.

If you've been sacrificing ease of operation for high capacity, it's time you saw the revolutionary machine that gives you both: the new Groundsmaster 580-D from Toro. Call your local Toro distributor to see the Groundsmaster 580-D or contact Toro at the address below. You'll see firsthand how productive and versatile large-scale turf mowing can be.

Another Toro exclusive allows you to raise one or both of the outboard cutting units inside the traction unit width. The 580-D can then trim between objects less than 8 feet apart with the 92" Triflex® cutting unit.

Toro's outboard cutting units also include an exclusive break-away protection feature. Should the operator misjudge distance, the wings will pivot away from the object that has been hit.

The 580-D's wide stance and short wheelbase give it maneuverability and stability. A short 76" wheelbase lets you turn an 18" uncut circle without braking. And Toro's exclusive swept-forward wing design keeps the tips of the outboard cutting units in line with the front drive wheels improving operator control and visibility.

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Agrotec Sprayers Deliver

Whether you spray once a day or 20 times a day, 50 gallons or 200 gallons, golf courses, tall trees, or commercial landscapes, you need a PRO-CARE Sprayer from Agrotec.

Agrotec PRO-CARE Sprayers are the Professional choice because they're built right. They're tough. They're reliable. And they deliver.

Available with 50, 100, 150 or 200 gallon polyethylene tanks, low or high pressure pumps. Skid-mounted for your pick-up or truck. Optional equipment includes boom kits, hose reel kits, and wheel/trailer kits for golf courses, nurseries, or towing.

Call or write for our free brochure and location of the distributor nearest you.

Leonard, UCR botany and plant sciences staff research associate, said that the thatch build-up was noticed while soil cores were being taken to measure tall fescue rooting depth. This triggered a sampling of the 39 varieties for thatch thickness.

Cluster analysis produced two significantly different groups of fescues with respect to thatch thickness and four groups of varieties based on turf texture. Results by variety are presented in an article titled “Thatch Accumulation in Tall Fescue Varieties,” in the UC publication California Turfgrass Culture, Vol. 37, Nos. 3, 4, 1988.

“Thatch thickness and turf texture were positively correlated,” Leonard notes, “supporting the hypotheses that the new, finer textured tall fescue varieties tend to accumulate more thatch than the older forage varieties.” The UCR study is not considered to be conclusive, he added, but it does point out a trend in tall fescue thatch accumulation that warrants further study.

Ohio State offers equipment curriculum

A college program that teaches technicians to operate outdoor power equipment will be offered at The Ohio State University.

Horticultural Power and Equipment Technology will be taught at OSU’s Wooster branch, beginning in the fall of 1989.

Students completing the two-year program that includes an internship will receive an Associate of Applied Science degree.

General education courses including communications skills, math, physics and microcomputers will be balanced with hands-on and classroom studies of engines, hydraulics, power transmission, and servicing specialized horticultural equipment.

In addition, the students will receive basic training in one of three areas: turf, landscaping or nursery.

Anyone interested in more information about the program can call Fred Lendrum at (216) 264-3911 or toll-free in Ohio (800) 647-8283. The address of the OSU-Wooster campus is 1328 Dover Road, Wooster, OH 44691.

Tru Green buys Texas operation

Tru Green Corp. has purchased Greenkeeper Inc., a San Antonio-
The choice is yours. Whether your customers need season-long preemergence weed control by itself or on fertilizer from leading formulators, Team fits.

Either way, you can control crabgrass and goosegrass season-long with just one application. Or even a split application, if need be, to better fit your program.

Team granular also fits your high standards of annual grass weed control. University tests show it’s outstanding. Team gets to the ground and stays put to form a zone of protection that keeps weeds out all season long.

And Team does all this without hurting your turf, including sensitive bentgrass.

So spread it straight in granular form. Or spread it on fertilizer available from leading formulators. Team fits your program. See your Elanco representative. Or call toll-free: 1-800-352-6776.

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Circle No. 111 on Reader Inquiry Card
based lawn care company with branches in Oklahoma City, Dallas, Austin and Houston. Tru Green has nearly doubled its size through acquisitions since last year. This move marks the second time this year that the company has acquired a competitor with revenues of more than $1 million.

The Greenkeeper name will be kept for the time being, says company founder James Eckhardt. The company's 55 employees will also remain and Eckhardt will continue to run the operation.

Eckhardt says he was not actually looking to sell when Tru Green approached him. "A lot of it was the people," Eckhardt says. "There's going to be a lot of opportunities for our employees."

**BUSINESS**

**Florida helps fill drought damage gap**

Reports from nursery plant producers in the Midwest indicate the drought of 1988 and searing heat may have inflicted heavy damage.

Earl Wells, executive vice president of the Florida Nurserymen and Growers Association (FFGNA) said initial indications received this fall point to a 30 percent loss of nursery plant materials in the Midwest. Most nurseries in the impacted areas do not have irrigation.

Wells says that Illinois, Indiana and Michigan were hit particularly hard. He adds that Florida growers will move to fill the gap left by the drought damage.

**LANDSCAPING**

John Moulder (left), president of Moulder Bros., receives a bronze plaque from Duane Bartlett, president of parent company Earthmark Industries, commemorating Moulder Bros.' 50th year in the landscape industry.

**Moulder honored for 50 years of service**

Glendale, Calif.-based, Moulder Bros. recently celebrated its 50th year in the landscape contracting industry.

The half-century has been a distinguished one, growing from a door-to-door operation started by Paul and John Moulder in 1937 to a corporation which did $20 million in business in 1987.

The company received numerous design awards over the years. Twice John Moulder, who took over full responsibility for the company in 1970 after Paul passed away, travelled to the White House to receive special citations. The company's work also received recognition from three national industry organizations and four California industry groups.

Moulder Bros. touch has reached such projects as Dodger Stadium, the J. Paul Getty Museum, Sea World and portions of most southland freeways in the Los Angeles area.

As John Moulder nears retirement he is beginning to turn over operations responsibilities to his management staff, which totals 150. Undoubtedly, the transition will be smooth and Moulder Bros. will continue to prosper beyond the end of its first century of business.

**GOLF**

Who to maintain your course for?

Superintendents of golf courses which host professional events must make up their mind: Are you maintaining your course for tournament and guests, or are you maintaining it for the everyday player?

This revelation from Daniel Pierson of Cherry Hills Country Club in Englewood, Colo., site of three Opens and two PGA championships.

"The first year I was here, we tried to alleviate some of the complaints from members by reducing some of our tournament conditions," says Pierson, who moved his fairway mower settings from ¼-inch to ⅛-inch. "It sure takes off a lot of pressure from the everyday comments you get from members. They really recognize that we're doing it for them, and they appreciate it."

"And I haven't heard anybody give us any complaints about flier lies. The lower handicap members were very concerned that we would, in going to higher cut fairways, have worse playing conditions for them. So far, it hasn't worked that way."

The tees, however, are a different story.

"We kind of sold our soul a little bit," Pierson notes. "I water to support conditions of play and not to support agronomic conditions. I consider that a bit of a compromise."

**SEED**

NuMex closer to landscape market

Seed yield on a variety of Bermudagrass developed at New Mexico State University has brought the grass a step closer to commercial use.

Arden Baltensperger, professor of agronomy and horticulture who developed NuMex Sahara, says the grass produced a good seed yield on a breeder field. Since June, approximately 100 acres of foundation seed have been planted in Arizona and
Nothing protects your greens, tees, and approaches from snow mold better than Calo-Clor or Calo-Gran turf fungicide. Order now. Before it’s too late.

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southern California.

"I hope this new variety will be of good use on golf course fairways, city parks and other large areas where seeding is the preferred method of establishment," Baltensperger notes. (See Nov. 1987 LANDSCAPE MANAGEMENT.)

Royce R. Richardson, president of Farmer Marketing Corp., notes that in 1987 some 70,000 NuMex Sahara plants were hand-planted on the 2.5-acre breeder field. "It’s all up and it looks very good," Richardson says. "We will have certified seed available to the public in July 1989."

The company was to begin taking orders for NuMex Sahara seed at the Western Seedsmen Association trade show in Kansas City Oct. 29 to Nov. 1. The company plans a major advertising campaign.

GOLF

Lyon to run for GCSAA presidency

Dennis D. Lyon has been selected by a nominating committee to run for president of the Golf Course Superintendents Association of America (GCSAA). The election will be held at the annual convention and trade show Feb. 13, 1989 in Anaheim, Calif.

Lyon is a certified golf course superintendent for the City of Aurora, Colo., Golf Division.


The president and vice president are elected to one-year terms and the directors to two-year terms. Three directors will be elected. The president will appoint a secretary-treasurer after the election.

In related news, the GCSAA membership surpassed 8,000 for the first time in history this August.

"I believe the association’s high visibility within golf is one factor contributing to growth," notes president John A. Segui. "At the same time, our continued increase in membership has also allowed the association to provide more benefits and services, which in turn has steadily attracted still more members."

GOLF

GCSAA to offer management system

The Golf Course Superintendents Association of America has contracted with Hall-Kimbrell, an environmental consulting firm, to develop an environmental management system for the golf course industry.

The package will include an environmental self-audit questionnaire and notebook along with videotape training materials designed to provide management assistance. The materials deal with subjects like pesticide use, storage and disposal, underground storage tank regulations, OSHA requirements and general risk management. Completed self-audit materials will be individually reviewed by Hall-Kimbrell's profes...
It's Effective. Grower and university trials have shown that Safer™ Insecticide Concentrate kills a broad spectrum of insects. It's effective on aphids, mites, leafhoppers, scales, and whiteflies that affect plants, vegetables, trees, and fruits. Made from naturally occurring fatty acids, Safer™ kills pests fast, on contact, by penetrating cell membranes. Yet it spares many beneficials. And it eliminates the problem of resistance buildup, too.

It's Safe. In addition to use during the growing season, Safer™ Insecticide Concentrate can be used as a pre-harvest clean-up spray. It's safe for workers to re-enter as soon as the spray is dry.

Workers can mix, handle, and apply Safer™ without undue concern about exposure. Neither special equipment nor special safety gear is required. And Safer™ Insecticide Concentrate won't contaminate soil or ground water because it's biodegradable.

It's Easy to Use. Safer™ fits in with most production practices. It can be used by itself as part of an integrated pest management system. Or, it can be tank mixed with other chemicals at reduced rates to broaden the spectrum of insect control yet achieve the same effectiveness.

Get a Free Sample. Judge for yourself just how effective this new, natural insecticide really is. Fill out and return the coupon and Safer™ will send you a free sample, a user's guide, and complete information including field trials. This offer expires April 30, 1989. Limit one sample per customer. Or see nearest dealer for special cash rebate offer.
Anchor turf covers and sod the fast, easy way.

ANCHOR IT!

Save Time, Money and Back-Breaking Labor.

- Firmly anchors sod & turf covers — even on steep slopes.
- Sturdy cast aluminum construction is lightweight for easy use (weighs approximately 10 lbs.)
- Holds up 50 anchoring staples.
- Steel staples may be removed from the ground at a later date or left in place. Staples will rust away with time.

Anchor It can save enough time by speeding up your anchoring operation to pay for itself in a very short time — and make your work easier as well.

Anchor It works fast. Anchor It holds fast.

ATHLETIC TURF

On the road again
LANDSCAPE MANAGEMENT technical advisor Kent Kurtz, Ph.D., executive director of the Sports Turf Managers Association, recently returned from a trip to England and Scotland. Kurtz visited the Institute of Groundsmanship (IoG) trade show, saw tennis at Wimbledon, racing at Ascot, soccer at Wembley Stadium and had a chance to visit with old friend John Souter. Watch for Kurtz’s observations in an upcoming article in this magazine.

“T had fun,” Kurtz says. “I’ve got plenty to write about.”

Clay leads to less maintenance
The artificial OmniTurf infield at Boardwalk & Baseball in Orlando, Fla., is doing well, thanks in no small part to George Toma, who took several weeks last spring preparing for the Kansas City Royals’ first spring training season there.

Toma and the stadium crew used gumbo clay under the surface of the pitcher’s mound and home plate to improve footing. As a result, the crew has reduced its daily repair work from six inches to only one inch.

A winning baseball facility...
“The secrets of groundskeeping are being told.”
That said by Jim Anglea of Texas Rangers Stadium during a talk at the Sports Turf Managers Association meeting recently. Anglea told the association membership some secrets himself.

“The key to success is drainage. You’ve got to get the water off the field,” he said. And the way to do that is to put a crown on the field from centerfield to home plate. Anglea does it with a laser grader.

Anglea also said, “You have to improvise. You’ve got to change your schedule.”

STMA gets together
The Sports Turf Managers Association annual meeting will be held at Vero Beach, Fla. from Jan. 13-15, 1989. Included in the meeting at the NL West champion Los Angeles Dodgers training complex will be educational sessions, a trade show and an awards banquet.

Dodgertown features 27 golf holes, a conference center and guest rooms for attendees. For more information, contact Melissa Merritt at the STMA. Phone (714) 981-9199.

Field fertilization
Getting the right fertility program for a baseball or football field is not an easy task. Especially if you’ve centerfielders who can run 4.5 forties and offensive linemen checking in at almost 300 pounds.

“To maintain the grass, you’ve got to fertilize it like you would a fairway—knowing that it will be abused,” says David Frey of Cleveland (Ohio) Stadium. Team schedules, weather, and traffic from special events all contribute to make application a complex decision.

Next month, Frey and veteran athletic turf manager Harry Gill of Milwaukee County (Wisc.) Stadium share some of their “tricks of the trade” in the pages of LANDSCAPE Management.
That's right! All of us have seen it before — that unacceptable area in our fairways or lawn. Just as important, an area where chemicals have been over-applied and a burned condition exists, and that can mean extra work for you. It's difficult to spray accurately and consistently on golf courses because every golf course is made up of countless slopes, contours, and bends. But with Blazon™ Spray Pattern Indicator you can take the guesswork out of spraying, forever.

All you do is add Blazon™ right to your spray tank; it's totally compatible with the chemicals you use. It reduces lost time by quickly identifying a clogged nozzle, untreated or overlapped areas. In addition, Blazon™ is temporary and non-staining. Blazon™ Spray Pattern Indicator is the new solution to a never-ending problem. So contact the distributor nearest you for the product that has taken an art and turned it into a science—"The Professional Solution for Professionals"...

Blazon™

SPRAY PATTERN INDICATOR

Milliken Chemical congratulates LANDSCAPE MANAGEMENT on its new name.
To the editor:
With due respect to the reports of my contemporaries on the subject of "The Black Death" (August issue), permit me to offer my opinion on the element that seems to be lacking.

Layers occur by intent or by the migration of finer particles. In soil growing media, migration is hindered by the presence of aggregates, produced by the process known as "floculation," enhanced by the presence of aerobic micro-organisms. In their absence, plants growing in a medium of high rates of infiltration, percolation and drainage, it follows that, with reduced water-holding capacity in the medium, irrigation is needed in quantity. The rapid movement of water tends to assist the finer particles to migrate. In a system that embraces flocculation, it appears that the grape-like clusters of fine particles, acting as large particles with ample pore space, may prevent migration to a considerable degree.

To sustain a thriving biological complex, it is necessary to provide the essential nutrients, which, for the most part, are organic in nature. This implies a totally different system of management, one that is in harmony with the age-old processes of nature.

High sand content of soils in putting greens that were "easy to keep" was a feature of field research conducted at Beltsville in the '50s with co-workers Radko and Wilson. Cupcutter cores from greens were collected and analyzed for sand content. Low sand content characterized the greens "hard to keep." The "easy to keep" greens showed many large pore spaces in photographs of thin slices of the profile.

This study, lacking final conclusions, was dropped in 1953. It may have contributed to the notion that, if high sand content in a soil is good, why not use all sand? It must be remembered that this was in an area where topdressings contained organic matter and organic fertilizers were in vogue. The biological nature of soil in the "easy to keep" greens was not determined, but it was thought to be high.

Fred V. Grau
Consulting Agronomist
College Park, Md.

To the editor:
Since 1986, I have been increasingly active on a broad range of environmental issues. My experience thus far indicates that generally speaking, most people who manufacture, distribute, sell and/or apply pesticides are not very interested in alternatives like integrated pest management (IPM).

Officials with the North Carolina Department of Agriculture see no problems at all with the safety of pesticides. If it were not for many concerned individuals, I doubt very seriously that the state would be developing guidelines for monitoring wells for pesticide contamination.

community feel that many major corporations really don't care about environmental quality, and conversely, organizations like 3PF feel that we environmentalists are a misguided group with sinister motives. Is it any wonder that people on both sides of the fence get frustrated?

I would like to point out that pesticides are not the only reason for problems in the environment. They are, however, part of the problem. We are all responsible for what happens to this planet, individuals as well as industry.

I employ IPM in my business, and have found it to work very well. I use the best cultural practices I am familiar with, and I only use pesticides as a last resort. The only materials I use are insecticidal soap, a sulphur-based fungicide/miticide, dormant oil and strategic use of Roundup. I am doing a lot more hand-weeding, and I intend to use a product called "Sharp-shooter" (Safer Co.) for weed control as soon as it is available in concentrate form.

Robert Mulder
Amsterdam Landscaping
Raleigh, N.C.

To the editor:
I sometimes wonder why the controversy exists concerning "VNS" (Variety Not Stated) seed.

For years, the terms "common" or "commercial" existed and described seed which was being sold as seed of that kind. Any reference to variety was reserved for seed being described with a certain variety name, either of pedigreed and sometimes non-pedigreed status.

More recently, sophisticated and astute seed buyers have come to recognize the merits of seed certification, and the guarantees inherent when specifying "certified seed." It would seem that this is all that is really needed; "common" or "commercial" seed to describe any seed which is not seed of an identifiable variety and one of the pedigreed grades. Pedigree seed merits the variety being part of its name.

"VNS" seems to be some kind of implication that this non-descript seed may possibly possess some varietal traits and characteristics. I do not believe it can be both ways, and disagree with messrs. Oliger and Roberts in attempting to justify anything other than "common" status for "common seed."

Finally, I would point out that it does not really matter whether you are dealing with a "reputable" or "non-reputable" wholesale distributor. If a buyer is not taking advantage of the assurances inherent with pedigree seed, then caveat emptor—buyer beware.

Martin C. Pick
Otto Pick & Sons Seeds
Ontario, Canada

GCSAA from page 17

The GCSAA reports that the system is expected to cost less than $1,000, a substantial savings when compared to the cost of an environmental audit, which can exceed $10,000.

INDUSTRY

Safer adds a pair of new east and west centers

Safer Inc., a leading researcher and manufacturer of naturally-based pesticide and plant care products, is expanding.

Safer has a new west coast distribution center in Ontario, Calif. that serves Washington, Oregon, Montana, Idaho, California, Nevada, Utah, Arizona, Alaska and Hawaii. This plant will cut deliveries to those states up to seven days.

Safer's new Camp Hill, Pa. facility allows the company to deliver product within three days to New England, New York, New Jersey, Pennsylvania, Maryland, Ohio, Virginia and West Virginia.

Safer, with headquarters in Wellesley, Mass., manufactures and distributes insecticidal soaps, moss and algae killers, a sulfur-based fungicide, a herbicide, insect traps, leaf cleaners and plant protectants to the green industry. LM
WELCOME TO THE LANDS OF THE GIANTS.

Jacobsen's three mowing giants cut your most monstrous schedule down to size.

With massive cutting widths of up to 16', there's a Jacobsen giant made to meet any of your high production needs. All three machines have front-mounted mowing units which cut grass before it's matted down by tractor tires. Giving you a neater, cleaner cut. And exceptional durability helps the Jacobsen giants turn in your lowest per acre cost, year after year after year.

**F-10 productivity in a ground-driven reel unit.**

Tackle a variety of turf conditions with your choice of reels. Five-blade Blitzers knock down rougher, taller grasses while 6- or 10-blade Fairway reels handle your formal and semi-formal turf areas, beautifully. Streaking and marking are eliminated because the F-10's reels steer through turns.

Rear-wheel steering gives this giant surprising maneuverability. Hydraulically raise and lower all seven gangs, in any combination, for equally impressive trimmability. Or, take to the road with a compact 8' transport width and speeds of over 20 mph.

The HF-15 adds hydraulic reel advantages.

The HF-15 gives you all the benefits of an F-10 plus a hydraulic-reel system for a tournament-quality, high-production cut, wet or dry. Add vertical mowing reels and make quick work of your biggest verticutting jobs, too.

**The HR-15 rotary giant takes on tougher turf assignments.**

Turn tall grass into well-manicured landscapes with three heavy-duty, 72” free-floating rear-discharge rotary decks. Or, choose fine-cut flail decks, with downward discharge and a cut that rivals reels. Perfect for busy parks, schools and other high traffic areas.

No matter what your production mowing needs, Jacobsen has the giant for the job. For a first-hand look, arrange a free demonstration with your Jacobsen distributor. Attractive lease and finance plans available. Or for more information contact: Jacobsen Division of Textron Inc., Racine, WI 53403.

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Jacobsen Division of Textron Inc.
As you can see, quite a fine

By the square inch, nobody gives you more for your money than Scotts. That's because the particles of Scotts fertilizer-based pendimethalin are much finer, more consistently sized than typical competitive products. So you get a higher particle count per square inch for more complete, uniform coverage. And the more even release of pendimethalin means even more consistent control and fewer application breaks.

Our own greenhouse and field testing, as well as independent university tests and five years of
practical, real life application confirm that pendimethalin is unsurpassed for the number of weeds it controls, the level of control and the duration of control.

Call 1-800-543-0006 for more information. Or contact your Scotts Tech Rep for help designing a pre-emergent control program for your turf. We think it's time you started enjoying the finer things in life.
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PEOPLE

Nick C. Toscano, University of California Riverside’s extension entomologist, has been appointed associate dean for Cooperative Extension in the Division of Agriculture and Natural Resources. Toscano has published more than 70 articles in scientific and semi-scientific journals.

Harold Pellett, professor of horticultural science and landscape architecture at the University of Minnesota Landscape Arboretum has received the Norman Jay Colman Award from the American Association of Nurserymen. The award recognizes outstanding achievement in horticultural research.

Dwayne Ingram, professor and extension specialist in ornamental horticulture at the University of Florida, received the Nursery Extension Award. Clifton Comstock of Monrovia Monrovia Nursery Co. in Azusa, Calif., won the AAN’s Wholesale Plant Salesman of the Year Award.

Paul Smeal, professor of horticulture and extension specialist at VPI-SU, won the L.C. Chadwick Educator’s Award. Henry Spalding won the Garden Communicator’s Award.

E. Thomas Smiley joined the Bartlett Tree Research Laboratories as plant pathologist and soil specialist. Smiley received his Ph.D. from Michigan State University in those areas. He was previously with ACRT Environmental Specialists.

Alston Legare Van Ness has been appointed director of marketing for the National Club Association. Van Ness holds a bachelor’s degree in history from the College of Charleston, and has specialized training in the master’s program at the University of Dallas.

Ron Zwiebel has joined Lesco as a fertilizer and seed specialist serving Alabama, Tennessee and central Georgia. Zwiebel was previously president and founder of Green Care Lawn Service. The company is now being run by his wife, Marlene.

Internationally recognized horticulture research scientist and professor at Clemson University, D.C. Coston has been named associate dean/director of the S.C. Agricultural Experiment Station. Coston replaces Absalom Snell, who retired from the post this year after serving the station for 39 years.

Long-time association executive George Rose retired after more than 50 years in the horticulture industry, including 24 years with All-America
The art of application for maximum germination.

<table>
<thead>
<tr>
<th>SEED TYPE</th>
<th>BRAND</th>
<th>POUNDS OF SEED PER 1000 SQ. FT. AT 2.5 LBS PER 1000 SQ. FT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENTGRASS</td>
<td>PENNEAGLE</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>PENNCROSS</td>
<td>2.0</td>
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<tr>
<td>KENTUCKY</td>
<td>ASPEN</td>
<td>1.0</td>
</tr>
<tr>
<td>BLUEGRASS</td>
<td>RUGBY</td>
<td>2.0</td>
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<td></td>
<td>PARADE</td>
<td>1.3</td>
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<tr>
<td>FESCUE</td>
<td>SCALDIS HAP</td>
<td>1.2</td>
</tr>
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<td></td>
<td>RUBY CREP</td>
<td>1.2</td>
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<tr>
<td></td>
<td>GALWAY TALL</td>
<td>1.2</td>
</tr>
<tr>
<td>RYEGRASS</td>
<td>PEN REP</td>
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<td>PERENNIAL</td>
<td>DORSET</td>
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</tr>
<tr>
<td>MIXTURE</td>
<td>AWESOME OVERSEED</td>
<td>1.2</td>
</tr>
</tbody>
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Two-inch spacing between rows gives you a dense pattern for one-pass application. Gandy® precision metering and an easily removed disc-type seed delivery system places the seed directly into the slits for uniform seed/soil contact allowing maximum germination.

The result is a lusher, thicker lawn.

The Ryan® Mataway® Overseeder is simply better.

- Better results begin with the basics, like seed calibration. An easy-to-read chart on the Mataway Overseeder tells you the exact setting for pounds of seed needed per 1,000 sq. ft. Just look it up, load it up, select setting, and you're ready to go.

The Ryan Mataway Overseeder gives you the flexibility to power rake, overseed, or to do both at the same time. Call today or contact your nearest Ryan dealer for more information and a free test drive demonstration.

Call toll free 1-800-228-4444 for all the details.
THE CUSTOMER AS KING

Today's saturated lawn care market demands that LCOs work harder to keep their customers happy.

by Will Perry, managing editor

"The issue now for lawn care companies that are going to be successful is better service," said Rudd McGary, industry analysts agree that the business of lawn care in America has reached a turning point in its history. Gone are the days of the endless customer base that LCOs have enjoyed for the past 20 years. In the 1990s, profitable companies will be those that are able to retain clients through improved communication while selling them additional services.

In the 1990s, the successful lawn care service companies will be those that remember the customer is king.
senior consultant with All-Green Management Associates in Columbus, Ohio. "The progressive companies out there have started saying to their customers 'You're the most important part of our business.'"

McGary notes that since the late 1960s, the lawn care industry has followed traditional business cycles of rapid expansion, followed by market saturation, and eventual industry consolidation, which exists currently.

Today, more than twenty years after the industry's inception, there is little variation to be found in the technical offerings of competitors, notes McGary. As a result, company that makes the special effort to attract and retain customers is likely to be more attractive—and profitable.

**Tapping potential revenue**

McGary's estimate of the total revenue available in the lawn care industry in this country is between $1.5 and $2 billion. Since just 1983, chemical lawn care market revenue has grown from $1.05 billion to $1.5 billion, according to industry surveys. Likewise, membership in the industry's professional organization, the Professional Lawn Care Association of America (PLCAA), has grown from 31 companies in 1979 to more than 1,200 today (which includes the loss of about 30 firms due to consolidation in 1988.) Translated, that means LCOs have reached most of the potential customers available.

To remain profitable, LCOs have recognized the need to hold on to their present customers and sell them additional services, such as mowing and management, tree care and aeration.

Russell Frith, PLCAA president, notes that the "Back to Service" theme of this month's PLCAA convention this month reflects the importance of the issue.

"In the last couple years you can see a real change in the look of the lawn care market. A huge amount of capital has been poured in and the competitive nature of the industry has increased dramatically."

"The thinking used to be that you could always go out and get a new customer if you lost one that wasn't happy. That's no longer always the case," Frith notes.

Frith's company, Lawn Doctor, has grown steadily for several years and ranks among the top revenue-earning lawn care companies in the country with annual sales of more than $31 million. The company has a policy of making sales calls to customers within 48 hours of a visit.

"Each company has to deal with the issue of customer retention in its own way," says Frith. "This is one of our ways."

**Better employee training**

The Davey Tree Expert Company of Kent, Ohio, with annual revenue of more than $5 million, has placed increased emphasis on customer communication in its employee training program.

"We want our people to treat each lawn as if it's the lawn of the president of the company," says Roger Funk, Ph.D., Davey's director of technical and human resources.

"Then we want them to realize that it's not the president of the company that pays their salary. The average customer does."

Davey's "Customer Care" training program is a two-day affair for field employees that was conceived in 1986 and initiated this year. Its focus is to get employees to evaluate their performance through the eyes of the customer.

Davey's field employees are encouraged to attempt to talk directly with customers at the time of service. If no one is home, personalized literature is left at the door, including a stamped survey card. Also, employees are to check the environment for possible areas of complaint.

Funk adds that a toll-free number...
for customers is also under consideration.

"As we looked back on 75 years as a company, we found that customer care was indeed the direction we should be headed in," says Funk. The company is currently designing an "Employee Care" program for its management personnel. It will be designed to attract, train and develop the type of caring employees it desires.

"After all," says Funk, "you can't have one without the other."

Mike Turner, operator of Cleveland-based Custom Lawns, uses a quarterly newsletter featuring articles on varied topics such as gardening and mower maintenance in addition to post-application telephone service calls. In addition, since a vast majority of his customers are within 20 to 30 miles of the home office, his employees will stop to evaluate the lawn condition of nearby customers while on the road. They always leave at least a personalized note behind that lets the customer know they were there.

These free visits cost Turner about 10 man-hours a week and have become an effective public relations tool.

"What we're doing now is going out between applications and taking a look around. We're making decisions about the success of the mate-

When Senske Lawn and Tree Care reached a slow growth period three years ago, owner Chris Senske gave it a booster shot by increasing emphasis on communicating with the customer. Today he operates three branches in Washington, enjoys an annual growth rate of 30 percent and revenue of more than $2.5 million.

"We had reached a plateau," notes Senske. "I wasn't happy with how the company was going and felt there was something we needed to do to make a change."

Senske hired a consulting firm to coordinate a two-day training seminar that is taken by all his field service representatives prior to the spring season. "The major thrust of it is to train them to be confident in their abilities to communicate with the customer," says Senske. His employees learn the reasons why people want a lawn care service, what customers want to hear, how to use the proper tone of voice in conversation and how to give a firm handshake, among other things.

"For the new employee, this seminar is awesome," says Senske. "They think, 'Oh my god, this really is a professional organization.' For the returning employee it's a good refresher course that reminds them who pays their salary."

In addition, Senske has 16 employees manning the telephones to drum up new business and contact present customers four to six weeks after their second or third application. "We're calling to see if we can receive there are 26 other customers with the same complaint you won't hear from. Sixty-five to 95 percent of those will not do business with you again. Also, the person with a complaint is likely to tell nine or 10 others of their misfortune, while 13 percent of those will tell more than 20 people. However, 95 percent of customer complaints can be rectified if you act quickly and courteously.

A competitive lawncare company can no longer tolerate an average annual customer turnover rate between 16 and 22 percent, he says. "There is greater awareness today that it's a lot more expensive to gain new customers than to retain the ones you have," concludes Kokkelenberg.

Consultant Larry Kokkelenberg says that treating a customer well is the most important element in a service-oriented business.

Ignorance is expensive
In addition to a rising or falling revenue and customer base, there are other factors to consider when evaluating your relationship with your customers. Specifically, it's important to read into those numbers for a more complete picture of where your company may be headed, says industry consultant Larry Kokkelenberg.

Kokkelenberg notes that for every customer complaint you receive there are 26 other customers with the same complaint you won't hear from. Sixty-five to 95 percent of those will not do business with you again. Also, the person with a complaint is likely to tell nine or 10 others of their misfortune, while 13 percent of those will tell more than 20 people. However, 95 percent of customer complaints can be rectified if you act quickly and courteously.

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LM

‘IT WORKS FOR ME’

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In addition, Senske has 16 employees manning the telephones to drum up new business and contact present customers four to six weeks after their second or third application. "We're calling to see if we can get them to complain before they complain," explains Senske. He says that about 10 percent of his customers have concerns that require attention.

These steps are part of a whole package of things designed to improve the company's image in the eyes of its customers. Senske says. How an employee answers or speaks on the phone, how easy it is for the customer to understand and

Chris Senske pay their bill, and providing sufficient notification of when you have or will visit a customer's home are all examples of everyday business aspects that can be used to your advantage.

—Will Perry
"In the bigger picture, isn’t what we do really just making sure that one more piece of a customer’s American Dream is picture perfect?"

"And thanks to Lebanon quality, we do it quite well."

There’s more to a beautiful lawn than meets the eye. It’s the part of a homeowner’s American Dream that depends on you—and the products you select.

Lebanon Pro fertilizer products are formulated for quick green-up. Uniformly sized for even distribution. Clean and easy to spread.

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Others try. But most traction-assist systems just don't cut it. Not when compared to a John Deere front mower.

In fact, components on other mowers actually wear out faster simply trying to do what John Deere’s differential lock and hydraulic weight transfer systems do so easily.

NO BOUNCING DECK

Springs are the key components in many weight transfer systems. But, if you've ever seen a kid on a rocking horse you know what springs do. They bounce.

One knob hydraulically transfers weight from the mower deck to the drive wheels on John Deere's F930, F932, and F935.

That's also what happens when you put springs on a mower deck. A side effect that's damaging to both deck components and quality of cut. John Deere's weight transfer system is better. Here, your mower

Trying to match the traction advantages of John Deere front mowers is hard on other machines.

Deck doesn't bounce because there are no springs. Weight is hydraulically transferred to the drive wheels by simply turning a knob on the right console.

You get better traction without sacrificing mowing quality. Best of all, it's all done on the move so you're always in control of changing conditions.

NO WORN-OUT BRAKES

A standard differential lock is the second major part of the system. Here, a touch of a pedal is all it takes to lock both drive wheels on the move. So, if one wheel slips, the other can still pull you through.

It's not a brake. There are no drums to heat up or wear out. It's a straight linkage in the axle that allows both wheels to turn at the same speed.

A much more positive way to get through tough footing than what the others would have you do—ride your traction assist brake.

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All told, you get a tremendous traction advantage with John Deere. The ability to use the differential lock and hydraulic weight transfer on the move means you work better on steep slopes, sidehills, and slick ground without losing valuable momentum.

A touch of a pedal locks both drive wheels on John Deere front mowers to help you through difficult conditions.

Talk to your John Deere dealer today for more information on these superior machines. Or write John Deere, Dept. 956, Moline, IL 61265.

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The increasing customer base for utility tractors means more attachments will be available in the coming years.

**COMPACT TRACTORS HELP REDUCE COSTS**

The versatility and flexibility of compact tractors make them ideal for budget-minded landscape managers.

by Ken Moehle

Increasing numbers of landscaping and maintenance operations are finding compact utility tractors in the 18 to 35 horsepower range valuable additions to their mix of equipment. One key reason is the ability of compact tractors to provide added versatility and flexibility.

Like mid-sized utility tractors, compact tractors can operate an ever-increasing list of attachments that mechanize hundreds of grounds care tasks.

Landscapers often purchase compact tractors because the versatile machines fit tight quarters and give more workers a productive, multi-purpose machine. However, once the tractors are in service, grounds care supervisors discover that compact tractors can simplify equipment management, control operating cost and reduce lifetime ownership costs.

**Operation and maintenance**

When compared to selecting single-purpose machines and maintaining an equipment fleet with diverse sizes and types of engines, compact tractors can help simplify servicing, repairs and managing supplies by:

- reducing the need to lease or buy and maintain a large inventory of single-purpose, self-powered machines;
- reducing the numbers of engine types and sizes to fuel, lubricate, service and maintain;
- improving the fuel efficiency of modern diesel engines in compact tractors, which compare favorably with the efficiency of smaller engines in single-purpose equipment;
- servicing skills, experience and tools are virtually identical to those for servicing mid-sized tractors, loader/backhoes, skid-steer loaders and similar diesel-powered equipment;
- the likelihood that fuels, oils and hydraulic/transmission fluids are the same as those required by mid-sized tractors, loader/backhoes and other

Ken Moehle is product manager with Tractors Case IH, Racine, Wisc.
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NAILING THE CULPRIT

With an efficient equipment tracking system, those lost and broken hand tools swiftly become a thing of the past.

by Jay Holtzman, contributing editor

Even the smallest landscape company or golf course can easily have tens of thousands of dollars tied up in equipment.

Because of this, virtually all landscape managers and golf course superintendents must come up with a system to track the use—and sometimes abuse—of their equipment.

Beyond being able to accurately track daily use of equipment, such equipment control systems can range from simple to elaborate, from informal to rigidly structured.

Keeping it simple

An informal system works best for The Caretakers of Egan, Minn. According to president Thomas Mann, “We don’t have a lot of crews running in all directions, nor do we have the variety of equipment some contractors have.” That’s because of the size and nature of the business: specialization in maintenance of commercial and industrial properties with no design work.

Yet even with a fairly specialized business, Mann has more than $150,000 worth of equipment, including a variety of front-mount and belly-mount equipment, walk-behind mowers, various hand tools and small power tools such as chain saws and aerators.

“Each mowing crew has a base line of equipment that it needs every day, and every truck has a complete set of that equipment,” Mann says. “The crews get their mowers and tractors for the day each morning and they must return them each evening, but there is no formal check-out system. We’re small enough that abuse or loss of the equipment isn’t a problem for us. We’ve talked about putting in a more formal system, but we just haven’t gotten around to it.”

Informal ways to track equipment, however, work well for him. “One of the things we did to quickly check for missing equipment was to install tool racks on the back of each truck for the shovels, rakes and so on, so that with a quick glance you can see if the truck is fully equipped with the tools they need to lug around every day,” Mann explains. “But for the most part, we have steady long-term employees, so we haven’t had a problem with theft or equipment abuse.”

Getting sophisticated

Even large, sophisticated tracking systems such as the one operated by DeLaurentis Construction of Mamaroneck, NY, still depend to some degree on the cooperation and goodwill of employees.

“We have a lot of people who have been with us for a long time—they’re like family—and they look out for our interests,” says Mary DeLaurentis.

Every piece of equipment has a use file, she explains: when in use, for how long, all maintenance and repairs. “All equipment appears on an equipment list with a code number for each piece. The code number is also inscribed on the tool, and this number is recorded each day that a tool is used. A daily charge is made at a specific hourly rate to every job for each
piece of equipment used on that job."

A fleet manager is responsible for the more than 40 pieces of large equipment the company operates. Another manager is responsible for the daily assignment of smaller power equipment (up to and including equipment the size of backhoes) and hand tools.

Tools are signed out each day to an individual who is responsible for that tool and responsible for returning it in good condition at the end of the day. For convenience and efficiency, small tools are kept in trailers at various job sites, but the individual is still responsible for them. Drivers are responsible for all the equipment on their trucks.

This careful paperwork system is backed up by monthly meetings with employees.

"Every month, we have a meeting of all the people who take out equipment. We review what has gone on during the previous month and discuss any cases of misuse or vandalism," DeLaurentis explains. "The bottom line is that we are a family-operated company and everyone knows that if there is a problem they will have to answer to the main man.

"Pilferage or misuse of equipment was a problem years ago when we were smaller and growing. We got notes from employees that so-and-so had built a house on our time and with our materials. But that isn't the case any more. With our system and family operation of the business, we have good control of it now."

Avoiding congestion

"The tool thing can get away from you quickly if you don't have control," says Kevin Downing, development director of Willoughby Golf Club, a new 18-hole residential club in Stuart, Fla. "In this new development, we have gone to a tighter system for better control.

"Before coming here, I sat down with my assistant and we looked at what we were doing and asked how we could do it better. Any problem we had with equipment was with smaller items worth $300 or less—string trimmers, that type of thing. So we put in a new tool system here and designed the building to accommodate it."

Storage areas for power tools and hand tools are at opposite ends of the new building. "We have a line of demarcation between where someone goes to pick up a power tool and where he goes to pick up a hand tool," Downing says. This cuts congestion in the morning when crews are drawing their equipment for the day and also reduces the opportunities for workers to loiter where tools are kept.

"All power tools are checked out to the employee by the mechanic since he is the person who sees the tool all the time and he knows the condition of it," Downing explains. "We deal with hand tools more casually—they're marked by department and the individual goes in and gets his own. We've found that the close tracking of hand tools just isn't worth the time and expense."

Along with the new physical layout, Downing is trying a new system for making work assignments that he believes will have a positive impact on the way equipment is handled. "We are giving some of our people standing work assignments so that they will have ongoing responsibility for a 'station,' a particular group of holes on the course, for example. A person will spend perhaps 24 hours a week on his station doing routine jobs. This individual will get the same set of tools for his station work every day. "We hope the person will be a little more responsible for the way he takes care of them. This also gives us a convenient check—we know who had what piece of equipment—and it cuts down on finger pointing."

Contractors and superintendents should also keep good equipment use records for their own protection in case of lawsuits, Downing points out. "You need some kind of system so that if an employee or former employee comes back and sues the company because he claims he was injured while using a particular piece of equipment, you can look back at your records and see, in fact, what that person was working with," says Downing.

Color-coding tools

Probably the most effective system is one that combines firm control of equipment with strong employee motivation. Like the system at Chapel Valley Landscape of Woodbine, Md.

"We put a lot of effort into our system and spend a lot of money on it," says Chapel Valley executive vice president Stewart Rom. "It gives us a minimal amount of downtime on the equipment and great image on our equipment."

The fundamentals of the system are simple: all equipment is assigned by crew, and each crew has its own set of equipment.

"We don't do a lot of in-and-out sharing of equipment," Rom continues. "Each crew operates with its own set of equipment. We've found over the years that with this arrangement you get less damage to your equipment and less argument and discussion about who did what to whom."

The use of some shared equipment like earth augers is scheduled during weekly meetings of the project managers and their foremen. And there is also some check-out equipment, Rom explains, such as chain saws and sod cutters, that are kept in a locked cage. That equipment must be issued by a project manager.

The same basic system operates for large equipment, too.

"Our larger landscaping equipment we operate with a pick-up truck or a large tandem truck, a trailer and a backhoe. The crew rolls with that set of equipment, it belongs to that crew, including the backhoe, and there is no sharing," Rom says.

The equipment lasts longer, too. Rom has found that backhoes are ruined with more than one or two operators. "You spend more money repairing it than you do anything else," he says.

To handle routine maintenance and keep the crew-assigned equipment system intact, Chapel Valley keeps entire sets of equipment as spares.

"We have rotation equipment that a crew uses when we service their rig for preventive maintenance purposes. They trade off the whole rig, leaving
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Mazda B2200 Cab Plus. Combining spaciousness with practicality, the Cab Plus is the first extended-cab compact truck that allows two adults to sit facing forward in optional rear jump seats.
their trailer and taking ours with all the spare equipment,” Rom says. And to keep track of equipment belonging to each crew, all equipment and trucks are color-coded so that every piece of equipment has a permanent home on a given truck. “The company is divided into departments and branches,” Rom explains. “Each branch has a color assigned to it, and every tool in the branch has a color stripe of that color. Then each truck within the branch has a second color assigned to it, and every tool on that truck also carries a stripe of that color. One color band is two inches wide and the other is one inch wide.” Tools are painted in the same colors as the truck to which they are assigned. Finally, a complete list of the tools assigned to that truck is mounted on the truck’s side and covered with plastic as a permanent record of that truck’s tool inventory. Inventory at Chapel Valley is taken quarterly, during which time everyone must account for their tools. “If you need a replacement for a tool due to wear and tear, you return the old tool to our internal company store and we issue a new tool. If you’ve lost a tool, we fill out a sheet that records that fact, issue a new tool, and charge the crew for it from an accounting point of view,” Rom continues. (Crews are not directly charged for such tools.) The whole record-keeping system gets strong support from a bonus system that rewards those crews that have taken good care of their tools. Says Rom: “We tally what tools a crew has lost during the year, and this affects the bonus that each member receives.” A perfect record earns 100 percent of the bonus; lost tools cause a reduction of the bonus. Most recently, the company has begun putting the name of the foreman on the side of his truck to add a further note of identity between man and equipment, and to instill even more pride. A sense of pride Rick Haas, course superintendent at Corpus Christi (Texas) Country Club believes that it is an employee’s pride in his work and a feeling of responsibility that is the key element in assuring good equipment treatment. “It’s the mechanic’s job when a mower comes back to check that the oil is right and that it has been greased properly and that sort of thing, and to go ahead and do those things if they haven’t been done,” Haas says. “Then it is also the responsibility of the employee who will be using the equipment the next day to run through the same set of checks again before he uses it. That way, we are checking it two or three times before it is used.” But the real key is “that they want to feel like they are important and appreciated and that it is important to do their job right,” Haas continues. “You’ve got to give them responsibility and work with them, and it takes some time.” Haas uses a big scheduling board in the employee lunchroom to keep employees informed about the jobs they’ll be doing. “I try to get them involved by showing them what has to be done for the whole month and what equipment we will be using. This way, they begin to feel like they are involved in the overall performance of the golf course. I also explain to them that if we can keep our overall costs down, it will mean more for them—a better raise at the end of the year.” “Overall, if you get the respect of your employees and you respect them one-on-one, they are going to treat your equipment with respect, too,” LM
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NOVEMBER 1988/LANDSCAPE MANAGEMENT 45
CLEARING PROFITS
WITH THE SNOW

The work is difficult and the hours long, but landscapers are making the necessary efforts—and money—from snow removal.

by Jerry Roche, editor

Snow removal is not an art or a science. Rather, it is a lot of both.

"It is an expensive business, but money can be made, given the right set of circumstances," says Thomas Mann of The Caretakers, Eagan, Minn.

Mann, Bill Peterson and Eldon Dyk were members of a panel on the art and science of snow removal during a recent meeting of the Associated Landscape Contractors of America.

They offered a series of tips on how their businesses make snow removal more profitable.

"We refer to snow removal as 'blood money,'" says Peterson of DuBrow's Nurseries, Livingston, N.J. "They're days of hard work and sleepless nights."

Dyk, of Allen Keesen Landscape, Denver, Colo., refers to the winter job as a necessary evil. "There are profits involved, but so are liabilities. For those reasons, we only remove snow for our regular landscape customers."

The major liability is taking a plow into an obstacle hidden by the snowfall. That's why Keesen drivers visit their sites in early October for a visual inspection.

The Caretakers keeps a "Plow Book" for drivers. The book contains a schematic for each job and special notes on high priority areas, where to dump the snow and phone numbers for emergencies. Mann says it's a three-ring binder with an acetate cover that works well. "Drivers must know all jobs," continues Mann.

And "corners, drains and fire hydrants must be marked beforehand," Peterson adds.

DuBrow's subcontracts most work to 22 subcontractors who use 40 pieces of equipment. DuBrow's maintains 22 pieces of equipment for its own use, including four-wheel-drive pick-up trucks with eight-foot plows, two-wheel-drive dump trucks with eight-foot plows and other trucks with 10-foot plows. "We also have Case W14s and W20s with two-yard buckets that can pile snow very high. We use those in community parking lots," says Peterson.

An eye on the storm
To get one step ahead of the game, Mann's company monitors local television broadcasts and regularly communicates with the National Weather Service. Most of the company's plowing is done at night, when the heaviest snow seems to fall.

Other problems associated with snow plowing, the trio notes, are scheduling and communication.

"With one to four inches of snow, we start at 4 a.m.," says Dyk. "With more than four inches, we're starting around 2 a.m." At Keesen Landscaping, supervisors are notified of an overnight snowfall. The supervisor then calls plow drivers, who in turn call their crews. "Plowers and two shoveler are sent out at the same time. Each driver has a regular route.

46 LANDSCAPE MANAGEMENT/NOVEMBER 1988
For over 35 years Snapper has been building the highest quality outdoor power equipment money can buy. Lawn care professionals know that such quality means lasting dependability and steady profits. And now Snapper makes this quality available in a wider selection of commercial products for your business.

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Snapper is America's number one choice in rear engine riders. Our Extra Tough models feature 12 hp engines and 5 forward speeds with on-the-go shifting. Our lawn tractors give you a choice of 33", 41" and 48" mowing decks. There's more to this business than mowing and Snapper has you covered with power pluggers, power rakes, trimmers, edgers and even a 2-stage commercial snowthrower.

So, for day in day out profitability, invest in Snapper quality. Write Snapper Power Equipment, Dept. 000000, McDonough, GA 30253.
In case of emergency, a mechanic becomes available at 6 a.m., Dyk says.

Mann says The Caretakers tries to plow in two stages. The first stage is the "open-up" stage which is completed by 7 a.m. so employees of commercial clients can get in and out of parking lots first thing in the morning. The second stage is the "complete" stage, which is full cleaning of the lots.

"Communication is very important with commercial customers because everyone wants to open up at 7 a.m.," Mann says.

The three contractors seemed to agree that the maximum length of snow plowing shifts is eight to 10 hours, for safety's sake. Crews out longer might suffer from fatigue and therefore might not exercise safe judgment.

DuBrow's sets up its entire snow plowing unit to handle up to 25-inch blizzards.

Mann has found 7½- to 8-foot plows to work best. And each of the trucks is equipped with a double battery system to cope with the sometimes frigid Minnesota winters.

Many companies like DuBrow's hire part-timers just to work snow shifts. DuBrow's, according to Peterson, usually hires 40 extra people just to shovel, most from the unemployment lines.

How to pay the help? Mann has a standard rate for up to six inches of snow; for six to 10 inches, the standard rate is doubled; for 10 to 14 inches, the standard rate is tripled. For more than 14 inches of snow, Mann pays employees by the hour.

To insure his financial stability, Mann also uses what he calls a "no-snow" contract. That is, if it doesn't snow through the winter, his company still gets a standard minimum retainer for being available.

"It pays to have a variety of types of contracts," notes Mann. "There are 10 different ways to set up a contract. There's a monthly rate as soon as the snow comes, a yearly rate, a yearly rate with minimum, an hourly rate and so on."

Sand, salt and calcium chloride are the most common materials to melt ice and snow on sidewalks. Mann, for instance, charges $165 an hour for salt and sand applications.

Is snow removal "blood money," then? Judging by the panel of ALCA experts, maybe. But it's green, and it is money.
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Always look for the NITROFORM® logo. It's your assurance of high-quality nitrogen.
LANDSCAPE MANAGER OF THE YEAR

By getting the most out of his personnel and equipment, Roy Peterman made the Brigham Young University campus a model of good management.

If Roy Peterman were a pie chart, he'd be made up of many different pieces. The biggest pieces would show his devotion to his wife and seven children, while his professional pieces would be pretty evenly divided between manager, planner, accountant, evaluator and teacher. As grounds manager at Brigham Young University, he put all the pieces together to become our Landscape Manager of the Year.

In five years he has streamlined his organization from 56 full-time employees to 38 while increasing their workload one-third. Still, his labor costs are \( \frac{1}{2} \) a cent less per square foot than the national average.

Still not impressed? Well, the next time you're in Provo, give him a call and ask him how many hours his people spent repairing sprinkler heads in the first quarter of 1988 (798.5) or how many minutes it should take to cultivate around a tree according to his time/motion survey (11 minutes). By pinpointing costs, Peterman has been able to effectively schedule and monitor the more than 300 total employees under his supervision with great detail. In addition, he has created The Five M's Physical Plant Resource Model, which defines the responsibilities and accountability of all employees, from director to worker, within the department.

A Capital Needs Analysis Equipment Replacement and Renewal List is also in place that tells department heads what equipment is on hand, when it was purchased, what it cost and its life cycle. The system helps Peterman set up his equipment budget early and provides an excellent method to evaluate the performance of each piece.

Peterman's artistry can be found in his description of a successful landscape manager, of which he writes: "...he will have a vision of our age and how he can positively enrich the lives of those who use the landscape by realizing that to create an attractive, ever-changing environment from living materials is the highest form of art."

Certainly the BYU campus is a testimony to his philosophy of landscape management. It hosts more than 50,000 square feet of flower gardens, 8,608 trees, 355 acres of turf and more than 40 acres of shrubs that are designed, in Peterman's words, "to ensure an optimum atmosphere for learning with peace and serenity available to each individual."

In the future, Peterman hopes to complete the requirements for a physical plant administration degree at BYU, write a book that offers a holistic approach to landscape management and improve the training capabilities of his department. It's hard to imagine him not succeeding in any of those endeavors.

Brigham Young University's sports fields undergo a six week renovation period where they're thatched, aerated, topdressed, overseeded, rolled and fertilized.
More than 240,000 flowers, which guests are allowed to pick, are planted at the Arizona Biltmore each year.

**Biltmore, Holy Cross make it close**

According to judges of the 1988 Landscape Manager of the Year award, Roy Peterman at Brigham Young University had excellent competition for the title. Named honorable mention, not far behind Peterman, were a pair of aspiring writers, Thomas Harrow at the Arizona Biltmore Hotel and James Long at Holy Cross College.

Harrow, when not overseeing the planting of 240,000 flowers each year, is otherwise busy publishing a book entitled "Five Star Gardening: Back to Basics in the Southwest." And one of Long's immediate goals is to write a handbook and resource guide for landscape managers.

The Arizona Biltmore, a Westin hotel, is renovated twice a year, according to Harrow. This includes planting 28 varieties of flowers and 5,000 bulbs, and scalping, thatching and overseeding all 11 acres of turf with 14,000 pounds of grass seed. The Biltmore is one of the few hotels in the nation where guests are encouraged to pick the flowers.

What was once a landfill is now the popular Paradise Garden planted with roses, trees, bushes, flowers and a special cactus garden that features 14 cacti native to Arizona and six Australian drought-resistant plants.

Long and Holy Cross were recently honored by the Sports Turf Manager's Association for having the "Baseball Diamond of the Year." Fitton Field, one of New England's landmark athletic facilities, has been the host to such standouts as Casey Stengel, Babe Ruth and Jimmy Foxx. During the 1920s, 1930s and 1940s, Fitton Field was the site of annual exhibition games pitting the Boston Red Sox and Boston Braves against Holy Cross.

Another highlight of the Holy Cross campus is the arboretum where the Teddy Roosevelt Tree is located. The former president planted the Scotch elm himself in 1905 following commencement. It is joined by thousands of evergreens, birches and flowering crabs on campus.

The contest was jointly sponsored by Landscape Management magazine and the Professional Grounds Management Society.

Fitton Field at Holy Cross, where Babe Ruth once played, is one of the nation's best-kept baseball fields.
Improvements in treatment have made reclaimed wastewater a viable source of irrigation water, and a way to conserve valuable freshwater supplies.

The lyrics "Well I love that dirty water..." from the Standells' 1966 hit song "Dirty Water" were 20 years ahead of their time. More than a few landscape and turfgrass managers will be singing it soon.

The use of dirty water, commonly known as effluent or recycled water, is a growing trend in a country that is wasting water resources at an alarming rate.

The use of recycled water is not a new concept, but only in the last five or 10 years, with the advancement of waste treatment technology has its widespread use gone beyond discussion and into common practice.

For now, its use is mostly on golf courses, though effluent use is spreading to parks and residential landscapes as water supplies become more scarce.

According to Toro vice president James R. Watson, Ph.D., 10 years ago about 70 to 75 golf courses in the entire country were using effluent irrigation. In California alone, notes Roger Lindholm of the California Department of Water Resources, at least that many courses were using effluent by 1985.

Water re-use in Florida is equally extensive. The 160 wastewater recycling projects in the state have a capacity to pump 380 million gallons per day (mgd). Of that total, golf courses account for 61 percent of the small systems (under 1 mgd), landscaped areas five percent. Of large systems, golf courses and landscaped areas account for 24 percent each. The balance in each case goes to fodder and direct consumption food crops.

One of the benefits of using reclaimed water, besides saving existing supplies, is its nutrient content. Most supplies have their share of ben-

**Diagram of Plant Operations/Cocoa Beach's Wastewater Treatment Plant**

**Key**

1. Wet Well
2. Main Lift Station
3. Filter Screen and Aqua Guards
4. Grit Chambers
5. Contact Tanks
6. Main Clarifiers
7. Reaeration Tanks
8. Aerobic Digesters
9. Sludge Handling Facility
10. Automatic Backwash Filters
11. Chlorine Contact Chamber
12. Effluent Irrigation System
Nobody gives you a beauty quite like the Pro Master 18-H. Because the beauty of our machine is the way it performs. Hydrostatic drive delivers speeds up to 6.3 mph without shifting. Standard hydraulic lift means easier operation. And twin rear wheel design, plus 0° turning radius make it a model of efficiency. Find out why ninety-six percent of the professionals, commercial users and homeowners we talked to told us they love the way their Gravelys perform. Test a Pro Master 18-H and find beautiful performance.
eficial nitrogen and phosphorous.

But a major problem with effluent, says Iowa State University professor Mike Agnew, Ph.D., is that a pipeline needs to be established to pump it. "If a superintendent has a problem with getting (fresh) water and he's close enough to a treatment plant, he could use effluent," Agnew says.

However, notes Lindholm, "It is expensive to put in a separate system for transport."

Effluent is not completely pure, or drinkable. But with proper treatment and filtration it's pretty close—about 99.9 percent pure, according to Watson.

"The source is the determining factor in its value," Watson says. "The biggest problem is public acceptance."

Brian R. McMahon, P.E., of Boyle Engineering Corp., which constructed Florida's huge Conserv II wastewater treatment plant, concurs.

"The public's lack of knowledge about the nature of reclaimed water can make the prospect of irrigating a community's golf course, lawns or food supply with wastewater an unattractive one," McMahon says.

"However," he continues, "knowing the process by which the waste product you flushed down the drain today becomes a valuable resource tomorrow can be the first step in making rational decisions about reuse."

Wastewater can go through several stages of pre-treatment before use, depending on where it will be applied. The first involves screening and settling of large solids from the liquid stream with minimal removal of dissolved or suspended solids. This is generally not acceptable for re-use because of the possibility pathogens remain in the water.

Stage two includes primary plus biological treatment to further remove suspended solids, break down organics and remove some dissolved solids. The finished product is then disinfected, usually with chlorine.

According to McMahon, secondary treated water is acceptable in areas restricted to access by the general public.

Tertiary treatment, for areas of full public access, includes sand filtration and chlorination to achieve higher levels of solids removal and disinfection.

"To achieve high level disinfection as defined by the Florida Department of Environmental Regulations," McMahon explains, "the treated water must contain no detectable fecal coliforms. This requirement is quite stringent and usually results in a clear, odorless reclaimed water that in many respects can meet drinking water standards."

Safeguards

Despite filtration, considerations must be made for pumping and storing effluent water. "Exposure to humans must be considered," Lindholm says. "Irrigate at times when humans wouldn't be exposed."

Storage areas (usually ponds or tanks) must be kept circulated to avoid stagnation. Effluent is potentially corrosive on non-plastics and can clog valves and sprinkler heads if larger particles are present. Dissolved salts can also corrode metal parts.

McMahon: 'Treated water in many respects can meet drinking water standards.'

However, Watson says, when treated effluent is used, remaining impurities are filtered out by the turf. "Turf is a great filter," he says. "It permits water to percolate into the soil and back into the groundwater in a very 'pure form.'"

Agnew stresses, though, that "you have to monitor it at all times for salt content." But he adds that filtration processes usually take care of the hazardous salts. He notes that one golf course in Iowa uses effluent that actually has a lower salt content than the town's "fresh" water supply.

"We feel that this is an efficient way to use the water supply," Lindholm says. "In California, we encourage water agencies to re-use the water supply. We think that its use should be increased, and we think it will be."

"It's a great source of water," Watson agrees. "It's an economic way of dispersing wastewater. It permits grass to be grown in areas where it otherwise wouldn't be grown."
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Circle No. 136 on Reader Inquiry Card
THE COST OF LAYOFFS

To layoff or not to layoff? With the winter season coming up, it could increase your cash flow to layoff some employees until spring. But, in the long run, you may lose some customers next year.

In today's economy, many green industry companies are experiencing the unfortunate after-effects of this summer's dry spell: poor cash flow. Because of this reduction in company profitability, many of you might be seeking ways to reduce your operating costs this winter.

What are the implications of laying off employees that you would have otherwise kept on the payroll for the entire year?

Three areas of concern need to be addressed in order to determine the appropriate course of action:

1. What did you plan on having these employees do this winter?
2. What are the potential ramifications of laying off these employees this year?
3. What will it cost to replace these employees if they do not return next year?

Plan their use
Companies often do not develop a written plan of off-season tasks for employees. They also often do not take the time to assign times for each task performance. If you take the time to detail the tasks and assign time to complete each task, you will be able to determine how many man-hours you need to plan for the winter. This planning is necessary now, if you hope to maintain or improve your financial performance for the year.

Laying off employees
Laying off non-essential employees has been a regular practice at those companies which have not been able to develop such a plan. In some cases, this may be an excellent manner by which you can continually improve the quality of your workers. Others, though, really hate to let potentially good employees leave.

Some states allow a green industry employer to be considered as seasonal with respect to his need for a specific size workforce. This allows the employee, when laid off, to qualify for unemployment benefits sooner, based on the fact that a specific return-to-work date is known at the time of the layoff. Many employees look forward to this time off; others take seasonal employment counter to the turf industry.

Layoff implications
If you choose to lay off some or all of your employees, there are many potential effects on your workforce in the future.

1. Employee morale will continue to be low. Individuals worry when it will be their turn to be laid off, especially if layoff policies are inconsistent.
2. It will be extremely difficult to attract better employees; ones needed to provide the management and consistency needed for growth.
3. There will continually be higher than average turnover of laborers who see no future for them with the company.
4. Your company will acquire a reputation in the community of inconsistency of service because of employee turnover.

Cost of layoffs
In determining the cost of layoffs, it is important to consider the total cost of keeping an employee on the payroll. These costs would include payroll, benefits, training, taxes, insurance, medical and life insurance, uniforms, customer turnover and service efficiency.

We have found that customer turnover generally increases at the rate of 30 to 40 percent when the same service personnel fail to return from one year to the next. The higher the customer's financial base, the stronger the bond between service personnel and the customer. In addition, the more interaction between the on-site technician and the homeowner, the lower the customer turnover.

Service efficiency continues to be a key factor, since the costs of equipment and training are rising. So how do you quantify this cost?

Use this formula:

1.) Write down the cost to attract one new customer, in dollars.
2.) Write down your current cancellation rate.
3.) Write down increased cancellation rate due to change.
4.) Figure the adjusted cancel rate by multiplying line 2 by line 3.
5.) Figure the increased customers you need to attract by subtracting line 4 from line 2.
6.) Compute customer turnover cost due to layoffs by multiplying line 1 by line 5.
7.) Write the number of customers serviced at the end of the year.
8.) Write down the full-time employees at the end of the year.
9.) Compute average customers serviced by one employee by dividing line 8 into line 7.
10.) Write down number of customers in the third month of the year.
11.) Write down number of employees in the third month of the year.
12.) Calculate the average customers per employee in the third month of the year by dividing line 11 into line 10.
13.) Figure efficiency cost, line 9 minus line 12.
14.) Multiply efficiency cost, line 13, times average revenue cost.
15.) Figure total cost efficiency plus customer turnover by adding line 6 to line 14.

Conclusion
If your answers to lines 6 and 14 are so small that they are not financially significant to your company, laying off employees is obviously not that expensive. If otherwise, you must change: map a plan as to how you can avoid those costs in the future. LM

by Rudd McGary and Ed Wandtke
From compact, walk-behind models to powerful riders, Bobcat trenchers are loaded with advanced design features to make trenching easier for do-it-yourselfers and professionals.

The T108. Precision power for do-it-yourselfers.
The T108 packs plenty of power on a compact frame that maneuverers easily through gates, around shrubbery and close to walls or sidewalks. All controls are within easy reach at the operator station.

With 24" to 36" digging depths available, it's ideal for running electrical and water lines as well as cable TV and telephone lines.

The T116. The ultimate walk-behind trencher.
Do-it-yourself trenching is made easy with the fully hydrostatic, walk-behind Bobcat T116 trencher. It makes short work of digging up to 48" deep even in tough soil.

Advanced hydrostatic power drives the wheels and digging chain, and automatically matches machine speed to ground conditions. A two-speed axle is used on the T116 for constant two-wheel drive. And all controls are within easy reach at a position behind the unit.

The T135/T136. Rugged, powerful, reliable - the best trenchers in their class.
The diesel-powered T136 and gasoline T135 combine the best of two worlds - the performance of advanced hydrostatics plus plenty of horsepower. And both models' 60" digging depth handles a wide range of trenching jobs. Utilities. Construction. Plumbing. Electrical. And more.

A two-lever, hydrostatic system propels both models, and provides independent ground and chain control to match unit speed to changing ground conditions. Hydrostatic power also means fewer parts.

The T135 & T136 are now protected with the best warranty in their class. The ground and chain drive systems are protected up to 24 months or 1200 hours.

The T906 Backhoe. Add versatility to your rider trencher.
Your Bobcat rider trencher becomes a tough backhoe with the T906 backhoe attachment. Its rack and pinion swing and tip-up operator seat provide outstanding power and operator visibility. The T906 digs up to six feet deep. And it comes with four bucket sizes to fit your needs.

Bobcat trenchers are easy to transport from jobsite to jobsite.
Ounce of fungicide worth a pound of cure

Jim Ellis, grounds superintendent at Lincolnshire Fields Country Club in Champaign, Ill., feels very strongly about turf disease prevention at the 20-year-old course he has worked on since 1977.

Disease prevention on fairways began only five years ago when Ellis and the previous superintendent began overseeding with ryegrass to change the stand composition.

"The main reason," Ellis explains, "was to help combat what was known at that time as Fusarium blight. However, we also found that the ryegrass gave us excellent competition against Poa annua. Because ryegrass is generally vigorous at the same time as the poa, we've been able to hold our own and even decrease the annual bluegrass in some areas."

On the other hand, Ellis has no desire to totally eliminate the original Kentucky bluegrass either. Otherwise, he believes that Pythium blight would take over as a major disease. Hence, he tries to maintain a mixed stand "that will withstand the summers a little better" by overseeding with both species on a regular basis.

"In the past, we were on a treatment program that called for addressing problems as they appeared," Ellis recalls. "In other words, for budgetary reasons, we would do everything agronomically possible to discourage disease, and then treat those areas that became critical. That way, the disease got out of control. That's essentially the practice for the first 15 years of this course.

"What we are trying to do now is slowly expand our budget in the area of fertilizer and fungicides to where we can get as much use as possible out of a good systemic product. Then if we still get a disease problem we hit it again."

While Ellis admits he has used just about every fungicide on the market, he currently limits his arsenal to a half dozen contact and systemic products—the mainstay of those being Rubigan, Bayleton and Cleary's 3336.

"We basically have two systemics that would be relatively expensive on a weekly basis," he says. "However, because they provide control for three to four weeks, the cost per day is very reasonable. So we may use Rubigan one week, and the next week we may come in with a contact fungicide for another problem," he adds, noting that fertilizer is often applied in the same application. Ellis says he was introduced to Rubigan in his quest for a chemical that would prevent and control dollar spot, which, year in and year out, had been his biggest problem.

"One of the first uses of the product was on a fairway, where we set up test strips in cooperation with Elanco, to evaluate its effectiveness against the disease," he says. "Although there were already active dollar spots on the course, our goal was to see if we could prevent further outbreaks."

According to Ellis, the product not only stopped the disease, but turned the appearance of the turf around. "You could see exactly where the sprayer nozzle quit and where the check strip began," he says. "Not only did it clear up the dollar spots, but the turf that was treated actually looked greener. We've found since then that we also get some suppression of Poa annua."

More recently, though, Ellis has been experimenting with Rubigan to control the summer disease previously known as Fusarium blight.

Researchers have found that infection starts below the ground rather than on the leaves of the plant. Hence, a revised approach was taken to treatment and control. "Characteristically, we don't see patch disease symptoms show up until the end of July or the first part of August," says Ellis. "That's when you begin to see the textbook frogeye pattern. That is, you have healthy grass in the center of a full or partial ring of dead or dying grass, surrounded by more healthy grass. As the disease becomes worse, the rings start running together until you end up with one big mottled area."

Referring to research done on his own course in cooperation with the University of Illinois, Ellis adds, "I believe at this point that the primary pathogens are actually working on the roots of the plant. What we are seeing on top may even be other pathogens that are attacking the weak grass plant; and that's when we are seeing the leaf damage. It also explains why you can't get complete control of it with a contact fungicide."

"Having worked with both fungicides and patch disease for several years now, Dr. Joe Vargas, turfgrass pathologist at Michigan State University, readily concurs. "Part of the key is applying the fungicide early enough," he says. "By that, I mean May or early June before the disease has a chance to become established." He insists it is equally important to select a fungicide that has proven effective against the disease you are going after. "Because of environmental conditions in our part of the country, it is pretty easy to identify them," he says, referring to the northern states. "We typically see necrotic ring spot on Kentucky bluegrass, summer patch on annual bluegrass and take-all patch on creeping bentgrass. However, as you move south, you may also see summer patch on Kentucky bluegrass. This summer we even saw summer patch on ryegrass. So you are never sure what you're dealing with. In most cases, the only way to tell the difference is to plate them out in the laboratory."

Rubigan, however, has been effective in suppressing all five pathogens.

Speaking from the experience on his own course, Ellis has to agree. Since the spring of 1986, he has been applying Rubigan as part of a program to prevent disease on tees, greens, approaches and those fairways that have exhibited the frogeye pattern in past years. "The way I see it, no one can expect total control when we're not even sure of the problem," he says. On the patch diseases, Ellis notes that Rubigan is not quite as effective.

"It's not the night and day difference you see when you use it on dollar spot, but you can still see where it has been active," he says. "So everyone's line of thought is that the product does have some control of the problem. However, at this point there are still a lot of questions concerning rates, timing of applications, how deep to water it in and how much the different pathogens are affected by all of the above."

LM
Oscar Miles, the superintendent at Butler National Golf Club, loves the LESCO 500 Fairway Mower. He should. He and Butler Equipment Manager Mark Winge had the idea of developing a lightweight, five-gang, greensmower-type fairway mower long before the LESCO machine was introduced.

Miles was one of the first superintendents to maintain fairways to putting green standards with triplex mowers. And although he never waivered in his conviction that greensmower-type machines were the way to go, he searched for ways to make the job less labor intensive and time consuming.

Miles found exactly what he was looking for when LESCO engineered the 500 Fairway Mower. Fairway cutting that used to require four mowers is now done with just two of the LESCO machines. And the results are better, too.

“We’re interested in close-cut fairways with outstanding quality and dramatic contours,” Miles points out. “The LESCO 500 Fairway Mower gives us that.”

The LESCO 500 delivers the precision cutting, dramatic striping and day-in and day-out dependability Oscar Miles requires. It can do the same on your course.

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Small business and the ‘lawsuit lottery’

by Edward R. Court

In fewer than three years, my product-liability insurance has risen from $6,000 to $40,000 per year. And the $40,000 this year buys only one-tenth the coverage I had three years ago.

I have spent the past 19 years building my security gate manufacturing and installation business to its present size (I now employ 45 people). All I have worked for—and the jobs of my employees—could be lost in a single judgement in what I believe is a "lawsuit lottery" for the money-grabbing plaintiffs and attorneys.

Every gate I install raises the odds against my company. The most frustrating part of the gamble is that a judgement against me could have little or nothing to do with the quality or performance of my product.

When I first began to notice the effects of the liability crisis, I felt a lot of resentment toward the insurance industry. However, as my understanding of the problem grew, I realized that for the most part insurance companies were reflecting their cost of doing business today. Most insurance companies were not willing to quote product liability rates, and many of them were getting out of the product liability market. That is not the kind of response you see when there is money to be made.

Liability juggernaut

In 1984, insurance companies paid out $1,552,744,000. More than $1 billion of that was for non-economic damages—that is, for pain and suffering. Legislation like Proposition 51 in California will help control these high costs. Unfortunately, however, it doesn’t put any limit on the amount of damages that can be awarded for non-economic reasons.

The bottom line is this: Unless the cost of the system is reduced, there will be little or no reduction in companies’ insurance premiums and no assurance that companies will keep the assets their owners have spent a lifetime accumulating.

Today, people are more willing to sue than ever before in our history. Between 1980 and 1984, lawsuits in Los Angeles County grew at a rate four times faster than the population. In 1985, lawsuits in Los Angeles County grew at a rate 13 times faster than the population, according to county records. Wherever you look attorneys are encouraging lawsuits.

A call for reforms

If the cost of our insurance is to be reduced, we will have to take these dollars away from the special interest groups perpetuating this condition. To do that, we need reforms limiting liability. Some suggested reforms include:

• Preclude liability where the dangerous aspect of a product is inherent and recognized by the ordinary user. Preclude liability when the product provides an important benefit and the known risk is unavoidable. Should a lawn mower retailer be responsible for someone’s heart attack?
• Eliminate the Collateral Source Rule. Today juries cannot be told an injured person has already received payment for his or her injury from another source, such as a personal health plan or a government agency. Juries should be able to consider all relevant information to determine how much an injured party needs or deserves.

• Provide immunity to volunteer directors and officers of a non-profit corporation who act in good faith.

• Grant design immunity to local governments. If a local government built a road 30 years ago that today wouldn’t be considered safe (with the increased traffic and present safety standards), don’t hold it liable.

• Attorneys receive 30 to 50 percent of everything a person gets. Limit them to a sliding scale whereby they would receive 33 percent of the first $100,000, 25 percent of the next $100,000, and 10 percent of everything over $200,000. The injured person would then receive more of the money he or she needs, and the attorney would not have a financial incentive to persue long and costly lawsuits (even when his or her client might be better served by a quick settlement).

To be done...

We need reforms to control the many greedy attorneys and the many greedy so-called victims who see dollar signs every time someone has an accident. In 1975, the medical industry in California got the Medical Injury Compensation Reform Act passed, which contains many of the reforms I’ve detailed. As a result, the average malpractice case nationally costs $974,858, while in California it is only $369,662. Similarly, a neurosurgeon practicing in New York pays $103,000 per year for malpractice insurance, while in California his counterpart pays $42,000. We need the same kind of reforms to protect our businesses.

I ask myself, and you should ask yourself, “How secure am I?” Could you become the next jackpot in the lawsuit lottery? The answer is “yes” for everyone.

Our liability system is out of control. We must bring back a sense of fairness and justice to this system. Stop complaining to your insurance agent. He or she fears the same thing every day. Take 20 minutes and write a letter to your state and federal legislators. Tell them you want reforms in our liability system and tell them you want to know what they’re going to do about it.

When you see a liability reform bill on the ballot, get to the polls and vote. One thing you shouldn’t do is agree with me and then do nothing. Take time and voice your opinion. It might be your business and future you’re helping to save.

There are well-run organizations in virtually every state working to solve the liability crisis. Join them and get involved. In California, contact the Association for California Tort Reform at (916) 442-1111. Nationally, contact the American Tort Reform Association at (202) 442-1111.

Edward R. Court owns Court Security Systems in Van Nuys, California.

Edward R. Court
The Workhorse

...with more horsepower!
RCM adds 18- and 24-Station Models.

Next time the job requires an 18- or 24-station controller, consider the RCM Series from Rain Bird.

The addition of 18- and 24-station models to the existing 4-, 6-, 8- and 12-station family means there is an RCM controller for virtually any residential or commercial application.

These new models offer all the outstanding features that have made RCMs so popular including simple operation, independent dual programming capability and a convenient 14-day cycle. And, they offer a NiCad battery recharge circuit that delivers maximum program protection during power outages and a new deep-drawn, seamless cabinet for unsurpassed rust protection.

The RCM Controller...a workhorse with the breeding of a thoroughbred.

For more information, call our TOLL-FREE number
1-800-999-1229, Ext. 305
Rain Bird Sales, Inc. Turf Division
145 N. Grand Avenue, Glendora, CA 91740

Circle No. 135 on Reader Inquiry Card
NOVEMBER 1988/LANDSCAPE MANAGEMENT 61
Protective fabrics for overwintering

New Kimberly Farms protective nursery fabrics are now available to ornamental and foliage nursery growers for overwintering and other seasonal frost protection uses.

The soft, white fabrics—spun-bonded polypropylenes known for their porosity, insulation and UV-stability properties—are products of five years’ research and development by Kimberly-Clark. Both lightweight (0.6 oz. per sq. yd.) and heavyweight (1.5 oz. per sq. yd.) nursery fabrics in varying widths and sizes protect high value nursery stock. 

Circle No. 190 on Reader Inquiry Card

Granular fungicide preventive and curative

Lebanon Total Turf Care has introduced a new granular fungicide product for use by the professional turf market—Lebanon Benomyl Lawn Fungicide Granules. This time-proven fungicide cures as well as stops certain diseases all season long. When used as directed, Lebanon Benomyl Lawn Fungicide Granules provide control dollar spot, large brown patch, Fusarium patch, Fusarium blight and striped smut. It is available in 30-pound bags that provide up to 15,000 sq. ft. of coverage.

Circle No. 192 on Reader Inquiry Card

Automated controls mean cost-effectiveness

Fertigation allows groundskeepers to inject liquid fertilizer into an existing irrigation system. As a result, labor is greatly reduced, fertilizer costs are lowered and turf growth is stabilized.

In such applications, Signet Industrial, a manufacturer of flow monitoring and process control equipment, offers a variety of control systems. The MK2517 Perma-Flo flow sensor, which can be inserted into any standard 1½-inch threadolet fitting, measures water volume. This is typically done on the main line from a booster pump station. After a specified amount of water has passed the sensor, Signet's MK9520 Feed Pump Pulser sends a pulse signal to an injection pump, which then delivers liquid fertilizer into the main irrigation line in pre-designated quantities.

Signet's MK585 Flow Alarm completes the system. This analog meter not only provides local flow indication, but also such safety features as audible alarms which shut off the main valve in cases where flow rates exceed desired limits.

Circle No. 191 on Reader Inquiry Card

Modular landscape body is versatile

Arbortech introduces a new, inexpensive modular landscape body which provides the versatility of fitting all standard flatbed units. Prior to this, body panels were designed to match a specific flatbed truck's body slot spacing only.

With Arbortech's modular body, users now have the versatility of adapting a landscape body to more than one flatbed design, thus extending useful product life and performance.

Circle No. 193 on Reader Inquiry Card

Mid-size mower makes an excellent companion

Exmark's 36-inch commercial power mower has the power to handle tough mowing jobs on its own, plus is an excellent companion to larger mowers. This mower's compact design and angled-corner deck provide excellent handling, balance and stability on slopes, Exmark says.

Single-adjust caster pins allow quick adjustments in mowing heights from 1 ½ inches to 6 inches. The unique, hinged grass-discharge chute flips up for quick and easy catcher attachment, and access into tight spaces.

This Exmark is available with 8 or 12 hp Briggs & Stratton I/C engines. It also has two transmission options variable speed or five-speed Peerless.

Circle No. 194 on Reader Inquiry Card

Increased economy from sprinkler head

Increased economy is added to Toro's line of best-selling sprinklers, with the introduction of its new Super 604 Full Circle Sprinkler for medium residential and commercial turf areas. This new product has a lower precipitation rate to reduce runoff and waste.

The Super 604 features a dual-nozzle with pop-up, to a nozzle height of 3 ½ inches for use with tall grasses. In addition, the Super 604 has an adjustable water radius feature offering up to 25 percent reduction in radius to prevent overspray.

Circle No. 195 on Reader Inquiry Card

continued on page 64
Look closely at this course. No dollar spot in sight. Not even resistant dollar spot, thanks to Rubigan.

Rubigan controls dollar spot on your tees, greens and fairways for only about 10 cents per 1,000 square feet per day. That's all. And you get a full 28 days control with just one 0.4 oz. application per 1,000 square feet.

Now look closer. Notice there's also no fusarium blight, necrotic ring spot, summer patch or take-all patch. And no large brown patch, either, with a Daconil 2787® tank mix.

Only Rubigan is labeled to prevent and treat all these harmful diseases. No wonder Rubigan is the superintendents' choice for dependable dollar spot control in all types of weather.

This year, make your course look this spotless. Make it dollar spotless with Rubigan. See your Elanco distributor. Or call toll-free: 1-800-352-6776.

Dollar spotless.

Dollar for dollar, nothing controls dollar spot better than Rubigan.
PRO PRODUCTS from page 62

Plant care products are safe, effective

PEP plant food products contain a natural growth stimulant enriched with chelated micronutrients which promote rapid cell growth, disease resistance, earlier maturity, lusher foliage, brighter more abundant blooms and increased plant production.

PEP plant food is packaged as a ready-to-use liquid, a liquid concentrate and as a time-released granular. Special formulated mixes are for every type application ranging from lawns to decorative indoor plants. Other NCF products include Kleenleaf shiner and Saf-T-Oil insecticide.

For professional lawns, PEP has turf products with growth stimulant that result in visual proof of filling divots or bald spots in 72 to 96 hours after application.

Circle No. 196 on Reader Inquiry Card

New line of mid-size walk-behinds is announced

Howard Price Turf Equipment of Chesterfield, Mo. has introduced a new line of mid-size walk-behind mowers.

Model WB48K offers a 48-inch deck while Model WB36K has a 36-inch deck. Both mowers are powered by a Kawasaki 12½-hp air-cooled engine.

Standard features include top greaseable spindles, easily-removable deck covers, double drive belts, five-speed transmission with reverse, pneumatic caster wheels and individual wheel brakes. Models WB48K and WB36K are designed to be highly productive and maneuverable while offering the user ease of maintenance.

Circle No. 198 on Reader Inquiry Card

Remove surface stones in minutes

Terracare Products Company of Pardeeville, Wisc. has introduced the Stone Ex Tractor.

The Stone Ex will remove surface stones in minutes, Terracare says. The tractor is fully hydraulic and is used with a 3-point hitch. It can also be used for many other heavy lifting jobs.

Circle No. 199 on Reader Inquiry Card

EVENTS
NOVEMBER


8-11: New York State Turfgrass Association Turf and Grounds Exposition, Rochester Riverside Convention Center, Rochester, N.Y. Contact: NYSTA, PO Box 612, Latham, NY 12110; (800) 873-TURF or (518) 783-1229.

9: Guelph Turfgrass Symposium, University of Guelph, Ontario, Canada. Contact: Division of Continuing Education, (519) 824-4120.

9-11: Fresno Farm and Landscape Equipment Show, Fresno, Calif. Contact: AgFresno, (209) 255-0764.

10-11: 22nd Annual Clemson Turfgrass Conference. Myrtle Beach Hilton, Myrtle Beach, SC. Contact: Dr. Landon C. Miller, Horticulture Dept., Clemson University, Clemson, SC 29634; (803) 656-4966.

13-15: Southern Turfgrass Conference, Montgomery Civic Center, Montgomery, Ala. Contact: Richard Dubile, 1003 Howe Dr., College Station, TX 77840; (409) 693-1656.

13-15: CLCA Annual Meeting, Pheonician Hotel, Scottsdale, Ariz. Contact: Larry Rohlfes, (916) 448-CLCA.

14-16: Penn State Golf Turf Conference, Keller Conference Center, University Park, Pa. Contact: Dr. Joseph Duich, Dept. of Agronomy, 405 Ag. Admin. Bldg., University Park, PA 16802; (814) 865-9853.


18-20: Green Team Conference and Trade Show, Buena Vista Palace, Lake Buena Vista, Fla. Contact: PGMS at Green Team Trade Show, 12 Gal-loway Ave., Suite 1E, Cockeysville, Md. 21030; (301) 667-1833.
ACCLAIM makes your pre work better.
Because weather can affect the performance of preemergence herbicides, many lawn care professionals have resorted to making two pre applications. But now, Acclaim 1EC Herbicide provides a new approach.

By tank mixing Acclaim with your late pre applications, you can skip the early pre treatment. An Acclaim/pre tank mix provides low-rate postemergence control of emerged crabgrass and insures that the pre will be at full strength later into the season, minimizing the need for later rescue treatments.

ACCLAIM works better on reseeded lawns. After a season of drought, you don't want a herbicide to interfere with established fall-seeded turf. That's the beauty of Acclaim.

You can delay or eliminate your pre on newly established turf and confidently plan on crabgrass control with Acclaim. Acclaim even allows you to overseed almost immediately before or after application. So even as crabgrass is dying, you're replacing it with lush, beautiful turf.

ACCLAIM for total flexibility. Acclaim gives you new confidence against crabgrass, both early and late. As a rescue, Acclaim provides control you can count on without turf damage. By treating borders and sidewalk areas early, you'll control crabgrass before your customers ever see it.

And Acclaim can be used near ornamentals without damage.

The money-saving ACCLAIM program.
Take advantage of the special offer for lawn care professionals: Buy 3 gallons of Acclaim before March 31, 1989 and get 1 gallon free.
**BUSINESS OPPORTUNITIES**

LEARN Professional Landscaping and Gardening at home. Accredited program provides thorough training in all phases of commercial and residential landscaping. Certificate awarded. Free booklet describes program and opportunities in detail. Contact Lifetime Career Schools, Dept A-349, 2251 Barry Ave., Los Angeles, CA 90064. 12/88

不知二Way TO BUY OR SELL a golf course? Exclusively golf course transactions and appraisals. Ask for our catalog, McKay Golf and Country Club Properties, 15485 N. East Street, Lansing, Michigan 48906. Phone (517) 484-7726. 1/88

BUSINESS OPPORTUNITIES: Central Ohio granular lawn service established 17 years. Accounts, vans & equipment. Inquire: J.L. Greene, 1285 Northport Circle, Columbus, Ohio 43235. 11/88

FOR SALE: Established garden center & landscape business, East Central Illinois. Located on busy highway. Home, garden shop, sales yard, with all inventory $100,000. Possible contract. (217) 283-7013. 11/88

HELP WANTED

MANAGEMENT

Due to our aggressive expansion program in the midwest, east coast and southwestern regions, we are needing management personnel for all phases of our tree & shrub and lawn care services, in both residential and commercial operations. If you are Results-Oriented with a strong desire to achieve and high personal goals, send resume including salary history to:

Corporate Recruiter Ever-Green Lawns Corp. 1390 Charlestown Ind. Dr. St. Charles, MO 63303

SUNNY SOUTHERN CALIFORNIA: Established full Service Landscape Installation and Landscape Maintenance Company. Commercial and Industrial Contracts. 1 Million $ of work in Progress with very large backlog. Company will operate on its own with existing management Excellent Customer Base. Non Seasonal. All inquiries will be treated discreetly. By Principal. Will consider terms. Write to LM Box 462. 11/88

NURSERY MANAGER - Take charge person, strong knowledge of plant material and plant production. Tremendous growth potential. Eastern Long Island. Send resume to: Box 226, Centerrport, New York 11721. 11/88

Career Opportunity. Established Southwest Florida firm seeks qualified individual to take over pest control portion of business. Must be quality and result oriented. Salary limited only by your abilities. Send resume to Lawn Care Extraordinary, 395 Havanah Road, Venice, FL, or call 813-488-0688. 11/88

**ARE YOU A NATURAL?**

Then bring your talents to us. We're SAV-A-TREE, one of the fastest growing arboricultural service companies in the industry, specializing in natural holistic tree and shrub care. We are dedicated to excellence and are seeking ambitious, detail oriented individuals to join our expanding team.

**VP Sales**

As a member of our management team responsibilities include major account management, sales forecasting and budgeting, marketing, recruitment, and training. Candidates should have an undergraduate degree or equivalent and an in-depth knowledge of arboriculture.

**Sales Representative**

Responsible for developing and servicing a customer base in an assigned territory. Ideal candidate will have a college degree in horticulture or a related field and a strong desire to succeed. Previous sales experience is a plus.

**Director of Training and Safety**

Responsible for training and supervising all field personnel to ensure that established quality control standards are maintained. This will include all phases of tree work.

Position requires at least five years of experience in all aspects of tree and shrub care. Candidates must have excellent interpersonal skills and the ability to develop and administer a formal training program.

These positions offer outstanding compensation. Send resume with salary requirements to:

STEPPHANIE PARKER 185 E. Main Street Bedford Hills, NY 10507

**MANAGER OF CONSERVATORY & HORTICULTURE** Mid-level management position, responsible for large conservatory, supporting greenhouses, and several public gardens and Horticultural areas. Directs development, marketing, maintenance, education programs, and staff of thirty. Strong leadership, administrative skills, and good background in Horticulture required.

**Salaries:** $27,900 - $30,100. Send Resume* to: Dennis Noak, 705 E. State Blvd. Ft. Wayne, IN 46805. 11/88

**PLANT ACQUISITION ASSISTANT**—National award-winning landscape firm seeks energetic and flexible individual for plant acquisition assistant. Candidate should have a working knowledge of landscape plant materials, be quality conscious and possess good communication skills. Knowledge of local/regional nurseries and suppliers would be beneficial. Send resume with references to Dave Scatterday, Martin Associates, 24380 N. Highway 45, Vernon Hills, IL 60061. 12/88

**MANAGER LANDSCAPE OPERATIONS**—San Francisco Area Company is seeking a manager with a proven background in Turf & Ornamental management as well as irrigation installation & repair. Employee & Customer scheduling & administration are primary to the job. 30K yr. start plus full benefit pkg. Send resume LM Box 463. 11/88

**PROFESSIONALS**

Due to our aggressive expansion program in the Southwest & West Coast regions we are hiring experienced landscape maintenance & construction personnel. We are looking for career minded individuals to fill openings for:

- Administrators
- Supervisors
- Salespersons
- Foremen
- Irrigators

Positions Available in:

- Los Angeles
- Santa Ana
- Palm Springs
- Dallas/Ft. Worth

We offer excellent salary & benefits. Send resume to LM Box 459.

**LANDSCAPE EMPLOYMENT OPPORTUNITIES**—One of the Midwest's largest commercial landscape contracting and maintenance firms seeks motivated, quality individuals to fill the following positions: Landscape Construction Superintendent, Estimator/Contract Administrator, Landscape Materials Buyer, Foremen, Pesticide Applicators. Excellent salary and benefit package. Send resume to: Reinhold Landscape, Inc., 23216 Telegraph, Flat Rock, MI 48134. 11/88

**TREE TRIMMERS**—The City of Los Angeles needs hard working, conscientious people with one year of full time paid experience in tree trimming or treatment work to fill openings in the Tree Surgeon Classification. Good benefits and promotional opportunities. Contact the Street Tree Division at (213)485-5675. 11/88

**WANTED**—Aggressive Manufacturer's Reps—Manufacturer of agricultural, golf course, municipal and lawn & garden spraying equipment is seeking qualified reps with experience in sprayer sales. Seeking nationwide network, exclusive territory contract, excellent technical support and top of the line equipment. Send resume and current line card to: The Brohly Company, P.O. Box 475-C, Dakota City, NE 68731-0475. Phone: 1-800-228-1003. 12/88
Circle the Reader Service numbers of those items of interest to you.

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

□ Landscape contractors (installation & maintenance)
□ Lawn care service companies
□ Custom Chemical Applicators
□ Landscape architects
□ Extension agents/consultants for horticulture
□ Other contractor or service (please specify)

**C. SUPPLIERS:**

□ Sod growers
□ Dealers, Distributors
□ Other supplier (please specify)

What is your title? (please specify)

I would like to receive (continue receiving) LANDSCAPE MANAGEMENT each month: YES □ NO □

Your Signature: __________ Date: __________

NOVEMBER 1988
This card void after January 15, 1989

MY PRIMARY BUSINESS AT THIS LOCATION IS:
(PLEASE CHECK ONE ONLY IN EITHER A, B OR C)

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

□ Golf courses
□ Sport complexes
□ Parks
□ Rights-of-way maintenance for highways, railroads & utilities
□ Schools, colleges & universities
□ Industrial & office parks/plants
□ Condominiums/apartments/housing developments/hotels/resorts
□ Cemeteries/memorial gardens
□ Military installations & prisons
□ Airports
□ Multiple government/municipal facilities
□ Other type of facility (please specify)

B. CONTRACTORS/SERVICE COMPANIES/CONSULTANTS:

□ Landscape contractors (installation & maintenance)
□ Lawn care service companies
□ Custom Chemical Applicators
□ Landscape architects
□ Extension agents/consultants for horticulture
□ Other contractor or service (please specify)

C. SUPPLIERS:

□ Sod growers
□ Dealers, Distributors
□ Other supplier (please specify)

What is your title? (please specify)

I would like to receive (continue receiving) LANDSCAPE MANAGEMENT each month: YES □ NO □

Your Signature: __________ Date: __________
HELP WANTED

CAREER OPPORTUNITIES

Expanding Sunbelt region firm has several growth-oriented positions available for experienced and knowledgeable individuals. Openings for:

Landscape Sales Representatives
Landscape Maintenance Supervisors
Landscape Construction Supervisors
Foremen
Foremen Trainees
Pesticide Applicators
Arborists

Horticultural education and/or experience required. We offer competitive wages and benefits for career-minded people. Send resume with education, work and salary history to:

Personnel Department
1801 Borchard
Santa Ana, CA 92705

SALES REPRESENTATIVES - Landscape maintenance firm that has been established for 30 years in southeast Florida has several openings for top achievers. We are looking for people who can challenge our top sales person who sold over $1,000,000 in 1987. Applicants should have a background in horticulture, turfgrass management or pest control. 30-50k first year’s earnings. Applications for training supervisors, service routes and pest control technicians are also being taken. Call or write Mr. DeMaria at 310 Northwest 16th Terrace, Pompano Beach, FL 33064, 305-971-0110. 11/88

LANDSCAPE SALES REPRESENTATIVES - Landscape maintenance firm is seeking quality individuals to supervise production operations. We are looking for self-motivated individuals who enjoy a challenging career. Responsibilities include scheduling, coordinating, and supervising several teams. Excellent salary & benefits with solid growth potential. Send resume to LM Box 461. 11/88

CHIEF LANDSCAPE ARCHITECT: For newly created metropolitan park district in Northeastern Ohio, Will administers the planning office of the park district, assisting in long range planning, plan development of park areas and facilities, coordinate work of consultants, schedule, coordinate, and supervise construction projects. BS in Landscape Architecture required. Must be registered LA in Ohio with four (4) years experience in design and Project Management. Excellent salary and fringe benefit package. Send resume to LM Box 461. 11/88

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Anyone involved in the turf industry is invited to attend the Ohio Turfgrass Foundation Conference and Show. For complete information and a conference program, contact:

Dr. John Street
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2021 Coffey Road
Columbus, OH 43210
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Ohio Turfgrass Foundation

Circle No. 134 on Reader Inquiry Card
Controlling nutsedge

Problem: Is there any weed control that will stop nutsedge? (Texas)

Solution: In response to an answer in the June 1988 issue of Landscape Management concerning managing nutsedge in Texas, I appreciate receiving the following comments by Greg Richards of Lesco:

"Lesco Image herbicide is registered for nutsedge control. Image alone at a one quart/acre or Image + MSMA are by far the leading measures of control for nutsedge in Texas. Image is labeled for use on warm-season turf, so it is not used in the tall fescue market in Texas. It specifically controls purple nutsedge. Basagran is mainly for meadows. Most nutsedge in the south is purple, although some yellow nutsedge does exist in northern Texas."

It is important to read and follow label specifications. Image label information suggests the following: "Image can be used to manage several weeds in established warm-season turfgrasses, such as Bermudagrass, centipedegrass, St. Augustinegrass and zoysiagrass. Actively growing weeds are easy to manage. Treated turfgrass may have a compacted growth habit and may inhibit seed head development without affecting its vigor. Avoid drift onto nearby desirable plants like vegetables, flowers or ornamental plants. The label recommends the use of a spray indicator dye such as Lesco Tracker to prevent overlaps."

Refer to the label specifications for further details on other precautions and uses.

Closing the door on beetles

Problem: A number of our clients are concerned about elm leaf beetle adults moving inside the house now. Our question is why are they entering houses and would they cause any injury? How do you get rid of them? We have been using Sevin in the past. (PA)

Solution: Adult elm leaf beetles tend to move inside houses, garages, under shingles, or other protected sites indoors or outdoors for overwintering. These insects often become a nuisance during autumn. Another reason may be because of excessive heat outside. These, as well as some other insects, may enter houses where there is a cooler environment.

To manage the pests, an understanding of their life history would be useful. Overwintering adults fly back to elm trees in spring from adjacent protected sites and feed on expanding elm leaves. Their feeding causes small, irregular holes on leaves. Each female can produce 600 to 800 eggs on leaves. Eggs hatch into tiny, black, grub-like larvae which feed on only lower sides of leaves and skeletonize them. As the larvae mature they become green to yellow with lateral black stripes. Affected foliage will turn brown, and the tree may produce a new flush of leaves which may also be eaten by the larvae. This extensive feeding activity by the adults and larvae year after year can cause the plant to become more susceptible to other disorders and/or eventually kill it.

After completing the feeding period, larvae move down along the branches and pupate on the ground at the base of the tree or on cracks, etc. These become adults in a week or two and return to the same tree or other elm trees for laying eggs. In the late summer and fall, adult beetles move out of elm trees and search for suitable sites for overwintering.

The insecticide Sevin you have been using is recommended along with several others. Sevin should provide adequate control. Make sure to treat when larvae first appear, when leaves are about fully expanded and again in July. If your clients are concerned about the pests inside houses, a trained pest control operator can give the proper advice and control.

The best time to dethatch

Problem: When is the best time to dethatch and topdress a football field? We are interested in this service and would be dealing with warm-season turfgrasses, like Bermudagrass, in the South and cool-season turfgrasses in the North. We would appreciate your comments. (North Carolina)

Solution: Generally, more than ½ inch of thatch is considered to be potentially detrimental to the turfgrass culture and quality. However, experts dealing with athletic field management consider about one inch of thatch desirable on a football field. If the thatch layer exceeds the desirable thickness, dethatch cool-season grasses in early fall while they are still growing. This operation interferes with ball games, then consider doing it in spring. Warm-season grasses, like Bermudagrass, can be dethatched in the spring just before greenup.

After dethatching, topdress the area with the same soil type or 100 percent sand. Do not use organic matter on a sand-based ball field. Organic materials will seal the field in time and will cause poor water movement, resulting in surface water accumulation. If there is a problem of standing water, consider improving the drainage by installing vertical or French drainage systems.

Balakrishna Rao is Manager of Technical Resources for the Davey Tree Co., Kent, Ohio.

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