

MOW YOUR PLANET.



Whether your world is municipal park land or a thousand-acre sod farm, your mower has to be able to cut it—day in and day out. Which means you can't rely on just any machine. Fact is, you need a Batwing.

Available in 12, 15, and 17 foot cutting swaths, the new Woods Turf Batwing finish mower is engineered for high-productivity mowing. Not only will it handle the wide open spaces, but specially designed gauge wheels make this mower a top

performer on hills, too. What's more, we've built the Turf Batwing to deliver years of trouble-free mowing, with a tough three-joint driveline, and long-lasting tapered roller bearings in every wheel, spindle, and gear mechanism.

To get the name of your local **Turf Batwing** dealer, call 815-732-4421. But you'd better call soon. You have a world of mowing to do.

Oregon, IL **WOODS**
815-732-2141

WOODS **BATWING** 9204

Circle No. 128 on Reader Inquiry Card



Help wanted...

■ Even with the best intentions in the world, our trade associations in Washington say they can't win these legislative battles alone. Director Ashby Ruden of the National Landscape Association wants your help.

"There are people out there who have specific areas of expertise. I would love to see them plugged into their relevant interest areas in AAN," she says.

"For instance," she suggests, "a landscape company involved in wetlands reclamation would be an asset to the AAN water management task force.

Tell your readers to get in touch with me if they would like to volunteer."

Ruden says she's aware of the enormous demands made on people in the green industry, but promises that, "when we ask for that involvement, we can streamline it so that it isn't burdensome, but a real opportunity."

If you agree that 1995 is a rare chance to make a difference, and you can help, get in touch with Ruden or Ben Bolusky at:

American Assn. of Nurserymen
1250 I St., N.W., Suite 500
Washington, DC 20005
Voice: (202) 789-2900
Fax: (202) 789-1893

LEGISLATION from page 10

that they risk the wrath of their constituents by trying to weaken it, and calling on Congress to reject changes).

□ **Ergonomics standards:** This innocuous-sounding OSHA-backed package would force employers to adopt equipment and work practices designed to alleviate such problems as back strain or carpal tunnel syndrome. It would address workplace conditions where bending, stooping, lifting or using forceful finger exertion are required. There would be penalties. To quote Bolusky, "This one will hit the nursery and landscape business in the head with a two-by-four." □

New common-sense laws on the horizon?

Is it true? Are legislators like Rep. Pombo really going to break up the logjam of stupid regulations?

■ Perhaps no one in Washington illustrates the changes in Congress that will affect the green industry better than second-term Rep. Richard W. Pombo (R-Calif.). A fourth-generation San Joaquin County rancher, Pombo represents some of the state's richest agricultural lands.

He is a member of the House Agriculture Committee and the House Resources Committee. His subcommittee assignments cover specialty crops and water policy among other things, and he has been named chairman of the task force charged with the reauthorization of the **Endangered Species Act**.

He is one of the co-founders of the San Joaquin County Citizen's Land Alliance, a group of farmers and property owners who advocate private property rights, and fight



attempts by government to strip these rights away from citizens. Such alliances are a rapidly growing national movement.

Pombo is a new kind of activist: a crusader for common sense in government. "The majority of my work has been on environmental laws—EPA or Fish and Wildlife or the Department of the Interior in general," he notes.

"We're trying to instill common sense into what they're doing and trying to rein in those federal bureaucracies. We're going to accomplish a lot in the next two years. You're going to see a major breakthrough in the regulatory jam. Some of the crazy things they expect people to abide by are going to end," he predicts.

"Once they have to justify their rules and regulations, it's going to break down a lot of the things they're doing now."

Take the reauthorization of FIFRA, the **Federal Insecticide, Fungicide, and Rodenticide Act**, which Rep. Pat Roberts (R-Kans.) believes Congress will get out of committee by the August break.

Now that the agriculture committee is in the majority, it's trying to make sure that legislation actually works in the real world. "And the need to have input from industry is more important that it ever was," Pombo states.

Where the **Delaney Clause**, the zero-

risk anti-pesticide law that threatens to remove a score of effective pesticides from market is concerned, he is particularly intense. "The whole concept of cost/benefit and risk management, and that applying that concept to the use of pesticides is extremely important," he says. "Being a farmer, that's what I'm most passionate about. No farmer applies any pesticides they don't have to. What you do put on, you want to work."

Within the realm of government anti-pesticide legislation, Pombo says that, "Some of the EPA decisions and those of other agencies have not exactly made a lot of common sense."

He thinks he knows what happens to turn bad ideas into burdensome legislation. "What happens now is somebody inside Washington or a university comes up with what sounds like a good idea. Because Washington is political, if they can make it sound good, they can pass it, whether or not it works in the real world."

He believes an important key to successful pesticide legislation is to require that applicators be educated.

"They have to know what they're putting on, what the risks are and the proper way to apply the chemical," he states. "If they're educated, and the production of chemicals that are out there is safe, we can eliminate 99 percent of the risk. A lot of the scare tactics can be taken away just by doing that. There is legislation we are working on right now that would accomplish those goals," he says, with evident satisfaction. □



Are activists headed for all 50 states?

■ While the attention of the nation is riveted on Washington, where 100 days of intense Republican legislation are making a huge dent in 40 years of liberal government, activist coalitions are already hard at work on Plan B—a stepped-up attack on pesticides and applicators at the state level.

Compared to Washington, it's a cherry-pick. At the state legislative level, overworked legislators meeting in short sessions have shown an alarming tendency to cave in to strident activist demands to curb pesticide use.

RISE executive director Allen James admits the state battlefield can be tougher than Washington, because, he notes, "Legislation at the state level is moving faster, and is more likely to be enacted before we can do anything about it. We have to be alert and quickly responsive."

The tide of issues is rising, swirling around buzzwords that activists believe can win strong public support, such as school IPM, banning herbicides in roadside spraying, and a welter of notification laws.

Allan Noe, RISE's director of state affairs, would like some help from the bleachers.

"It would be great if your readers would shed their apathy when they see and hear of legislation of this nature," he observes. Here's Noe's state-by-state list of the most dangerous state legislation out there, together with his commentary (in *italics*):

CALIFORNIA

S. 929—Prohibits new use registration for extremely hazardous pesticides.

The problem here is that "extremely hazardous" is extremely hazardous by the definition of enviro-senator Nicholas Petris. One subtlety in Petris' bill is that it goes back and captures other pesticides on his list after the bill's enactment date. This bill surfaces periodically, an annual event in the California legislature.

S. 1287—Study to identify estrogen-imitating compounds and effects on humans.

Another hardy California perennial. Reintroduced this session by activist Sen. Tom Hayden after its defeat last year, it

attempts to establish a link between pesticides and breast cancer. Hayden has retailored it to fund research into estrogen-imitating compounds, including pesticides. On the surface, you might ask, "What's wrong with more research?" but in this case, there is adequate ongoing research.

HAWAII

S. 1320—Bans use of herbicides in maintenance of public roadways.

This one would eliminate roadside spraying by eliminating any chemical means of controlling weeds. Hawaiian activists claim roadside mowing will control the vegetation problem.

ILLINOIS

H. 1058—Amends the mosquito abatement district acts, asserting municipal rights.

Would rescind uniform statewide pesticide legislation on abatement, giving cities and towns the right to regulate and prohibit mosquito spraying. There are 51,000 municipalities in America. Do you want to be in the mosquito abatement or landscape management business when they all establish their own regulations?

MASSACHUSETTS

H. 2619—Landlords need permission from the Health Board prior to application.

You must apply for permission before spraying for termites and cockroaches. That's any application, inside or out, and on the grounds. Paperwork heaven.

MARYLAND

S. 128—Mandatory IPM in public schools.

Mandatory is the operative word. IPM ought to be done on a case-by-case basis. Each school is a different eco-system. The good news: this one is dead, but RISE is cooperating in setting up a voluntary program in cooperation with the state department of agriculture.

NEW YORK

A. 3755—Pesticide use reporting: breast cancer study.

The nightmare of nightmares. Politicians would require a report of every pesticide application in the state, with a long, detailed form. It would apply to commercial and private applicators. What they're trying to do is use this information they will have generated to try to establish a link between breast cancer and pesticide use. Nobody has enough people on the payroll to sort through this stuff.

A. 604 and 2269—Local regulation of commercial lawn applicators and reverse pre-emption of state pesticide laws, returning law-making to the local level.

Another door-opener to local option regulations.

A. 955—Replaces herbicides as method of weed control on rights-of-way.

(See Hawaii bill.)

A. 2072—Provides for reduction of pesticide use by state agencies.

Requires state agencies to develop plans to reduce overall pesticide use. Fits in with the activist agenda that reduced use equals reduced risk. The two are not necessarily connected.

A. 3164—Prior notice to owners of adjacent property.

Another pain-in-the-neck notification bill.

A. 3968—Outlaws uses of pesticides that are "known/probable/possible" carcinogens.

This one would outlaw all pesticides that ever gave a problem to a laboratory rat. Will New York solons start in next on naturally-occurring pesticides with alleged carcinogen risks? They outnumber chemical pesticides 100 to one.

A. 5507—Applicator must file written proof of the existence of target organisms prior to application.

Sure, right after we get done notifying the neighbors, getting the landlord to ask the city for permission, filling out a pesticide use form for breast cancer studies and checking to see if we are complying with bizarre local laws.

OKLAHOMA

H. 1165—Prohibits certain public entities from using herbicides. Prohibits state agencies from pesticide use.

Bill is a perennial, same guy comes up with the same basic bill. Dead—for now.

S. 308—Requires 24 hour pre-notification of spraying, and 14-day post-notification.

Not only do you notify the neighborhood before you spray, you make sure those notices stay up for two weeks. Known as the "printer's relief act."

TENNESSEE

S. 1740—IPM in schools; calls for "least harmful" pesticides to be used.

A very popular issue in legislatures. This one died for lack of support.

TEXAS

H. 1471—Structural pest board to adopt IPM standards in day-care centers.

This one, like so many others, is backed by the National Resources Defense Council and the National Coalition Against the Misuse of Pesticides (NCAMP).

WEST VIRGINIA

H. 2471—Mandatory IPM for schools and day care centers.

Face it, this one passed the legislature and the Governor allowed it to become law without his signature. RISE is working with state to help them put a sensible law in place by the Aug. 15 deadline, when the state agriculture department must have a program in place and delivered to local school boards. □



EPA focuses on birds, fish

■ The "E" still stands for "environmental," asserts Dr. Anne R. Leslie, a chemist with the EPA. And its mission will be focused on the effects which foreign materials have on the environment—specifically, bird and fish kills—in the near future.

The EPA has called in data for any bird and fish kills that may be pesticide-related. Leslie suggests that landscapers, lawn care owners and golf course superintendents "save the carcass and send it to us for sampling."

"The toxicity we've seen has occurred at the proper application rates," she notes. "We see a number of instances where birds are affected by pesticides, and it's not always immediate. And it's happening on turf."

What the EPA is doing to reduce its regulatory burden:

- Using quick registration (six months) as an incentive for manufacturers to bring to market less risky pesticides.

- Giving exemptions for tolerances of residues in food, like pheromones.

- Requiring Experimental Use Permits to test at least 250 acres.

- Giving blanket exemptions to pesticides that need no registration (like cedar wood blocks for moth control).

- Supporting and encouraging new bio-pesticides.

Nonetheless, she says that some materials used on turf "may need stricter regulation," to wit: ethoprop, diazinon, bendiocarb, isofenfos, chlorpyralid and trichlorofon.

"We regulate pesticides, not the uses of pesticides," says Dr. Leslie. "Our job is to assure that the benefits outweigh the risks.

But the true benefits are far from being clear; in fact, they're quite controversial."

The EPA's new "Pesticide Environmental Stewardship Program" will give landscape managers safer options.

It may well be offered in cooperation with user groups such as the Golf Course Superintendents Association of America, the Professional Lawn Care Association of America, and the U.S. Golf Association, all of which want to participate.

Dr. Leslie made her comments in front of an audience at the Virginia Turfgrass Conference earlier this year.



Dr. Anne R. Leslie

—Jerry Roche

Can't we all just get along? *Hell no!*

■ In Washington, it is said, 50 percent of the job in getting legislation passed is in knowing who your friends are. Based on experience, those interviewed for this report on the prospects for legislation affecting the green industry separated the industry's friends from its foes.

FRIENDS

Rep. Tom Bliley, R-Va. Chairman of the full House Commerce Committee.

Rep. John Boehner, R-Ohio. GOP conference committee chairman.

Rep. Gary Condit, D-Fla. The person who, along with Rep. Karen Thurman, led the fight against elevating the EPA to full cabinet status (See Karen Thurman).

Kika de la Garza, D-Tex. ranking member, full House Agriculture Committee.

Rep. Tom DeLay, R-Tex. House Majority Whip. The moving force behind Project Relief, the small business coalition that sparked much of the GOP's "Contract With America" regulatory reform legislation.

Rep. John Dolittle, R-Calif. A strong, consistent industry supporter.

Rep. Cal Dooley, D-Calif. He has carried amendments for the industry in the Agriculture and Natural Resources committees.

Rep. Bill Emerson, R-Mo. Chairs House Agriculture Subcommittee on Department Operations, Nutrition and Foreign Agriculture. Critical to success of new legislation.

Rep. Tom Ewing, R-Ill. Early booster of reform, pro-small business and regulatory

reform.

Rep. Mark Foley, R-Fla. Freshman and one of the new breed, former chairman of the Fla. Senate Agriculture Committee.

Sen. Mark Hatfield, R-Ore. Sits on the Senate Appropriations Committee, is a strong supporter of the nursery industry.

Rep. Tim Johnson, D-S.D. An immense help on the crop insurance issue.

Rep. Bob Livingston, R-La. Chairs full Appropriations Committee.

Rep. Richard Lugar, R-Ind., Chairs Senate Ag Committee. Good, solid lawmaker with reputation for integrity.

Rep. David McIntosh, R-Ind. Chairs House Subcommittee on Government Reform and Oversight, and is a leading regulatory reform advocate in the House.

Rep. Charlie Norwood, R-Ga. A guy with a huge interest in changing the way OSHA does business. His biting one-minute speeches kept liberals off-balance during the first 100 days of the "Contract With America."

Rep. Jim Nussle, R-Iowa. A key player on House Ways & Means Committee.

Rep. Richard Pombo, R-Calif. Second term Congressman sits on House Ag Committee. Ferocious fighter for common sense pesticide laws based on bitter experience.

Rep. Earl Pomeroy, D-N.D.

Rep. Pat Roberts. Chairs House Agriculture Committee. See how fast bills fly out of there now.

Rep. Karen Thurman, D-Fla. The moderate on the House Agriculture Committee who led the fight against elevating the EPA to cabinet status unless it agreed to consider costs vs. benefits and

risk assessment in passing new regulations.

Rep. Charles Stenholm, D-Tex. The highly respected ninth term member of the House Agriculture Committee.

FOES

Rep. Sam Farr, D-Calif.

Sen. Russ Feingold, D-Wis.

Rep. Jon Fox, R-Pa. Perennial sponsor of the worst piece of state notification legislation ever conceived.

Rep. Maurice Hinchey, D-N.Y. Watch this one, based on his activist legislation in the New York state legislature.

Sen. Pat Leahy, D-Vt. A key barricade in the liberal roadblock that stymied common-sense pesticide legislation in the House and Senate.

Sen. Joe Lieberman, D-Conn. "Mr. Notification Law" in Congress.

Rep. Cynthia McKinney, D-Ga.

Rep. George Miller, D-Calif.

Sen. Patty Murray, D-Wash. An activist on each shoulder.

Gerry Studds, D-Mass. Activist on water issues, wants to drive up the price tag of cleaning up waterways, billing pesticide users and producers in the Dem version of the Clean Water Act.

Rep. Henry Waxman, D-Calif. The man most responsible for bottling up the legislation in the House Energy and Commerce Committee for four years that was needed to overturn the Delaney Clause. Need we say more?

Sen. Paul Wellstone, D-Minn. Strong anti-industry proclivities. □

Get the one that gets them all!



The combination of Trimec® herbicide components and MSMA in Trimec Plus gives you one of the most efficient and convenient herbicides ever developed for use in turf!

Since most problems can be cleaned up with just one application, there is less chance of damaging your desirable turfgrass.

Approved for use in bluegrass, tall fescue, zoysiagrass and bermudagrass.



Gets unwanted grasses, nutsedge PLUS broadleaf weeds in turf.

“Weed problems were very severe in 1990 when I took charge of this 4 year old course. Relying heavily on Trimec Plus we achieved complete cleanup in just a couple of years. We still use Trimec Plus, but mainly for goosegrass escapes now.”



**James M. Taylor, CGCS
HATSUHO INTERNATIONAL
COUNTRY CLUB
Dededo, Guam**



“For the past two years we have used Trimec Plus on our roughs and greens collars to control crabgrass and broadleaf weeds. Results have been excellent, even on nutsedge, and spraying Trimec Plus is more convenient than using or tank-mixing several different products.”

**Michael S. Sullivan, GCS
HAWTHORNE HILLS COUNTRY CLUB
Lima, OH**

“Trimec Plus gives us a “safety net” for our preemerge program which is split into two applications. Late signing accounts, however, get only one – or none. When service calls involve either crabgrass or nutsedge, Trimec Plus is our answer.”



**Norm Tetter, Gen. Mgr.
LAWN GENERAL
Gaithersburg, MD**

TRIMEC® PLUS

Postemergent Grass & Broadleaf Herbicide

pbi / GORDON CORPORATION
An Employee Owned Company

816-421-4070

ALWAYS READ AND FOLLOW INSTRUCTIONS ON THE PRODUCT CONTAINER.

Tune-ups boost employees' worth

People are one of the few assets that become more valuable with time.

by Vic Osteen

■ You would not invest in an expensive piece of equipment and not do regular maintenance on it. Most pieces of equipment come with a recommended maintenance schedule of service. It tells how and when to check fluid levels, replace worn parts, inspect and adjust components. It ensures that you get the best out of the piece of equipment.

This is also what should be done with our employees. We need to regularly spend time with them, not just when they become complacent or burned out.

Meeting with employees to go over an annual performance review isn't enough. We need to do preventive maintenance on them to keep them performing effectively and efficiently. We must regularly check their performance, provide information, redefine goals and objectives, and be sure that they are running like a well-oiled machine.

Something as simple as having a brief conversation with each employee on a regular basis may be enough. I know of one manager who goes through his desk calendar, puts a person's name on each day, then makes the effort to stop by and visit with that person, or spend some time with him or her.

This would certainly be more beneficial than complaining that people don't how to work any more. Or that people don't want to work any more. Or that people haven't been taught how to work. These are complaints I'm hearing way too often now.

The workforce and the employee have changed in the past two decades. We as employers and managers must recognize these changes and make adjustments in the way we think and act.

The basic image of employment for today's worker has changed dramatically. There is no longer such a thing as job security or a long-term commitment from the company due to mergers, downsizing, and new technologies. Employees are reacting to this realization, and many live in fear that they will be tossed out just as

quickly as yesterday's computer.

On the other hand, without employees, work would not or could not take place. Employers must recognize the value of employees and people in general while seeking to run a profitable business.

People are one of the few assets that become more valuable with time. Through their ever-increasing ability to gain knowledge, store information, and formulate ideas and concepts, employees, unlike most other assets, actually appreciate in value rather than depreciate.

Managers need to develop an "employee maintenance schedule" which also includes employee training—not only technical, but personal development training as well. In order to build a better workforce, we need to build better people. Training is an opportunity for the employee to check actions and attitudes, make adjustments, and, in many cases, recharge their batteries.

It is obvious that the paycheck is no longer a strong motivator for most employees after their basic needs are met. Even million dollar baseball players want more. I have found that most people want two things from any employer: respect and appreciation. These are manifested in several ways, such as being part of a team, knowing what is going on, having interesting work, and having a manager who cares about employees as people.

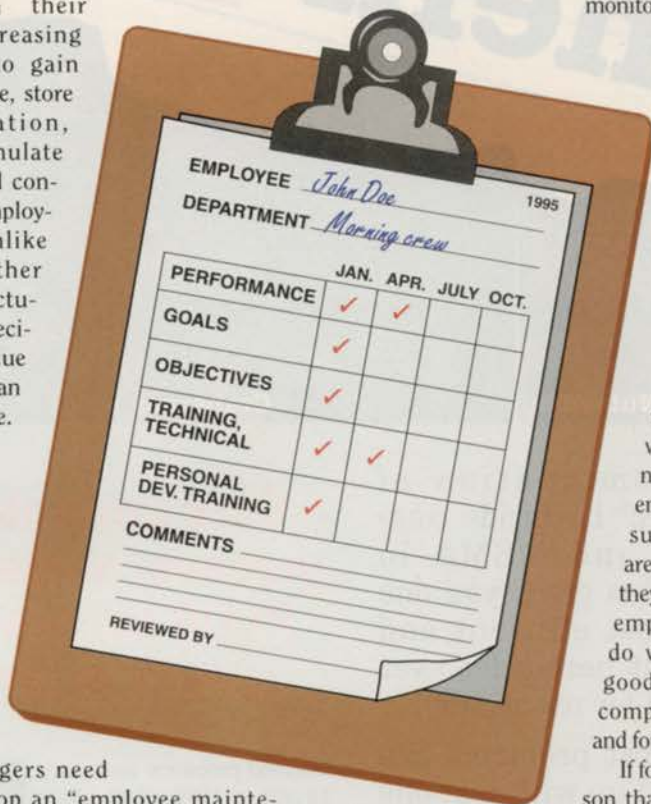
All of these are very easy to provide if

managers take the time and effort to do so. In fact, Peter Drucker, the father of modern management in the United States, says that, "When you become a manager, you give up honest work and should spend all of your time making sure that the employee can get his work done."

I recommend that you spend some time developing a system that will regularly monitor the effective-

ness and efficiency of each employee. It should include respect and appreciation through care and training. Start today to establish a method which will meet the needs of your employees to be sure that they are performing as they should. Most employees really do want to do a good job for the company, for you, and for themselves.

If for no other reason than financial, it is best to maintain and keep good employees. It is estimated that the cost of replacing an employee is pricey, one third of his or her annual salary. □



—The author is a leading consultant and speaker in the green industry. For more information or to comment, contact Vic Osteen, Growth Seminars, 3726 S. Peoria #31, Tulsa, OK; (918) 742-8454.

GOLF & ATHLETIC TURF

Public course helps city out of waste water nightmare



Meadow Lakes Golf Course, irrigated with effluent water from the tiny nearby city of Prineville, Ore., is a pretty sight from the surrounding 300-foot plateau.

■ Wayne VanMatre looks down from the 300-foot-high plateau to survey his Meadow Lakes Golf Course below. It looks like an intricate green puzzle in central Oregon's Crooked River Valley. With his eyes he can pick out the 66 bunkers, but he needs binoculars to distinguish any of the 1,500 young trees.

"I can walk the rim rock and see every inch of the course," says VanMatre. "It's like being able to fly over the golf course anytime I want to."

It's a pretty sight in the dry, crisp air just east of mountainous Willamette

National Forest. A relatively new sight too. Construction started on the course in May 1992 with the front nine opening in July 1993 and the back nine a month later.

Golf course architect Bill Robinson did a nice job. He designed 10 acres of blue ponds into 133 acres of turfgrass. Wetlands, about 10 acres, separate the golf course from the river's edge.

When VanMatre, a native Oregonian, heads for the plateau though he's not sightseeing; he's usually checking out Meadow Lake's irrigation.

Water's a big deal at this course that's

located a half mile south of downtown Prineville. Specifically, waste water. Meadow Lakes uses a lot of it for irrigation (last summer about 350,000 gallons per day, this summer probably more). It's a good thing for Prineville that it does too. The course helped the city get out of a big jam. Here's how.

Fines threatened—Less than five years ago the city of Prineville (pop. 5,800) faced fines of up to \$10,000 a day for non-compliance to provisions of the Federal Clean Water Act. Its out-dated waste water

continued on page 20G

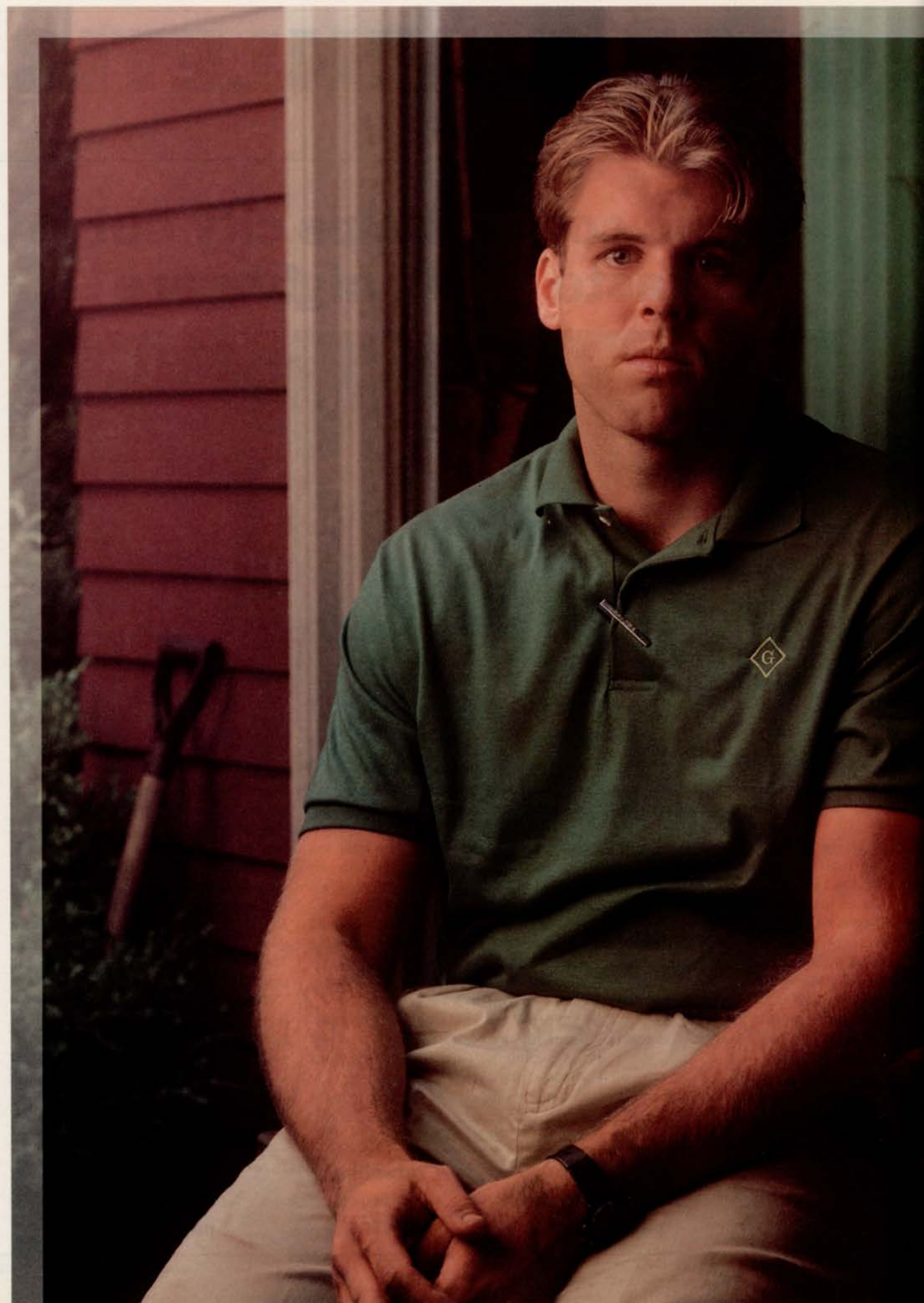
ELSEWHERE

Velvet bent for the future, page 20G

Doling out \$\$ for good mowers, page 26G

Protecting your trees, page 30G

Maintaining athletic turf, page 30G





LOTS OF INSECTICIDES
LET YOU TAKE CARE OF GRUBS.
OURS LETS YOU TAKE CARE OF
YOUR WORKERS,
TOO.

Worker safety is becoming an increasing concern for employers today.

So an insecticide that works better, yet is less toxic to people
and the environment sounds pretty good, right?

Well that's exactly what you get with MERIT® Insecticide.

Our new chemistry enables you to effectively control grubs while using
85% to 96% less active ingredient than you'd use with other soil insecticides.

And performance? In 88 trials across the country, MERIT has
delivered an average of 94% control of grubs.

What's more, you can apply MERIT in the spring to control
billbugs and *Hyperodes* weevils and provide enough residual to
effectively control grubs throughout the summer.

To find out more, contact Miles Inc., Specialty Products,
Box 4913, Kansas City, MO 64120. (800) 842-8020.

Because where workers and insecticides are concerned, less is more.

So use MERIT and use less.



WASTE from page 17G

treatment facility discharged pollutants into Crooked River.

"Nobody disputed the need to clean up the river," says VanMatre. "The problem was financing a new plant."

The city looked into building a state-of-the-art treatment facility. But the price tag of \$25-\$30 million was too steep. Finally, Prineville gained EPA approval, along with \$10.3 million in grants and financing, to upgrade its older facility.

This appeased regulatory authorities. But it left the city with another problem.

Prineville had to find something to do with as much as 1 million gallons of treated waste water daily because, by agreement, it could only discharge into Crooked River six months of the year, or only during the fall and winter. During the growing season the waste water was to be applied to the land.

Effluent as irrigation—The original plan called for irrigating alfalfa fields with the effluent. But there wasn't enough acreage. Then the mayor and city manager turned the city's attention toward using the effluent to irrigate a new golf course.

Initially, the EPA said "no way" to this suggestion, remembers VanMatre. Regulatory agencies finally acquiesced when enough safeguards had been designed and built into the project.

For example, even though this part of

Oregon is high desert and gets only 10 inches of precipitation annually, the ground water is just 5-8 feet below soil surface. To keep effluent from contaminating the ground water, crews, using a laser-guided trencher, installed 22,000 feet of deep drainage tile during the course's construction. It took 1½ weeks. They dug it, laid the pipe and put a sand envelope around the pipe all in the same operation, says VanMatre.

The course must regularly monitor seven wells on site for evidence of nitrates or contamination. So far, no problems, says VanMatre.

Safeguards in place—The city is producing about 650,000 gallons of treated waste water daily. It's pumped from the city treatment plant to a 13-acre storage pond. From there it's piped to the 10 shallow ponds on the golf course. These ponds are lined with high-density plastic. The ponds will hold a total of about 15 million gallons. About 13 million gallons will evaporate during a normal summer.

Then, in the evening, when all golfers are gone, the effluent is used to irrigate the course. The Rainbird Maxi 5 irrigation control system can apply 3,200 gpm, as much as 1.5 million gallons a night.



Wayne VanMatre,
superintendent of
Meadow Lakes Golf
Course, Prineville, Ore.

Since the property on which the course was built was flat, Meadow Lakes fairways had to be sculpted to drain into its 10 plastic-lined ponds.

The greens also drain into the ponds. That allows the Meadow Lakes crew to over water the greens one week a month to flush effluent salts from the Pennlinks turfgrass.

VanMatre says the public course should be finished with about 30,000 rounds in its first full season. He's hopeful that it will build to 40,000 rounds per season within

five years.

Between 70-80 percent of the play comes from outside of the Prineville area, adds VanMatre. Some comes from Bend, Ore., a nearby community of about 50,000. And some comes from the other side of the mountains, cities like Portland and Seattle.

Whether VanMatre is walking the course or looking down onto it from the adjacent plateau, he says Meadow Lakes is both challenging and beautiful. And, because it's a municipal-type course, it's also affordable.

"We wanted the type of golf course that would draw people here," he says. "We think it turned out pretty nicely."

—Ron Hall



Skogley, with a healthy patch of Velvet bent that thrives in shade or sun.

Velvet bent: the future of temperate greens?

by C. R. Skogley, Ph.D.
University of Rhode Island

■ Velvet bentgrass (*Agrostis canina*, subsp. *canina*) could be the grass of the present and the future for golf greens in temperate regions. Large sums of money are spent annually attempting to find ways to reduce management inputs on golf turf. One obvious—but neglected—method to achieve this goal is to use a grass that has reduced growth requirements.

Velvet bentgrass is such a grass.

Velvet bentgrass was a common component on greens on many older golf courses into the 1960s. In most cases, it arrived as a component of "South German mixed

bent," the seed widely used on our earliest courses. "South German" was a naturally-occurring blend of creeping bent (*A. stolonifera* L.), colonial (*A. tenuis* Sibth.) and velvet. For many years, it was the only bentgrass available as seed. Until the advent of 'Seaside' and 'Penncross' varieties in the 1940s and 1950s, greens were established with "South German" seed or were vegetatively established from stolons.

Under the low level of maintenance provided through the first half of this century, velvet bent would generally predominate over creeping bent. With the advent of increased inorganic fertilizer and water use, velvet began to suffer and developed a

continued on page 22G