

Market Earthmate: a bio-compost that enhances the physical structure and workability of the soil. (Prism)

Maxiplex: a concentrated humic acid. (Floratine Products)

Nature's Blend: a compost material, made either of mixed yard waste or leaf waste, that conditions the soil for better plant rooting and increases cation exchange capacity. (Kurtz Brothers)

New Mexico Menefee Humate: a granular product that helps guard against contaminants in the soil, balances micronutrients, improves soil structure and cation exchange capacity. (Earthgreen Products)

N-Hance: liquid calcium in a humic acid base that acts as a sodium reducer, root stimulant and nitrogen stabilizer for urea. (Earthworks)

Northwoods Organics: custom-processed peat to match sand particle size in loose bulk, "super sacks" and compressed bales. (Northwoods Organics)

Nutra-Aid: derived from plant extracts and manures that improves permeability and penetration, helps retain organic matter. (Nature's Touch)

Nutri-Sul: a sulfuric acid soil treatment that, after injection, reduces soil pH and releases minor elements. (Doggett)

Partac: a heat-treated golf course peat topdressing. (Partac Peat)

Pelletized Gypsum: conditions clay soil and neutralizes salt damage. (Jonathan Green)

Pene-Turf: a biodegradable product that improves permeability and aeration, promotes proper drainage, reduces erosion. (Four Star Services)

Penn-Mulch: a seedbed mulch made from recycled paper that contains starter fertilizer to protect seedbeds. (Agro-Tech 2000)

Pervade: a biodegradable wetting agent and penetrant. (Floratine Products)

Professional Soil Bioinoculant: an all-natural animal byproduct containing soil microorganisms and all-natural fertilizer that helps reactivate sterile-type soils. (Lesco)

Potent-Sea: a liquid sea kelp biostimulant that stimulate roots, reduces head stress and increases microbial activity. (Earthworks)

Primer 604 Matrix Flow: a soil surfactant that corrects and prevents soil water repellency to move water through the soil uniformly. (Aquatrols)

Professional Plant Biostimulant: multiple plant hormone that promotes root growth, plant development and stress tolerance. (Lesco)

Profile Porous Ceramic: a permanent product providing balanced porosity to reduce competition, improve drainage, solve localized dry spots. (Aimcor)

PSA Porous Silica Aggregate: all-natural diatomite that increases permeability, rootzone oxygen, flow, exchange of air and water. (PSA)

Rebound: a combination of crumb rubber and organic compost that increases pore space. (JaiTire)

Relief: a natural enzyme that helps soil release excess salts. (Nature's Touch)

Roots: a dry formula natural soil conditioner for new plantings and stresses lawns. (Roots/RGB)

Sand-Aid: a granular sea plant meal soil conditioner and topdressing that increases

organic weight, moisture content, carbon release rates, stress tolerance and nutrient-holding capacity. (Emerald Isle)

SarGro: derived from yucca, a soil wetting agent that improves water efficiency. (Sartec)

Sea Humus: cold-processed seaweed plus humic acid that conditions soil. (Humus Products)

SeaGreen (Plus): a liquid kelp product that supplies micronutrients to soil, with or without fish emulsion. (Bonide Products)

Soil Acidifier: 90% elemental sulfur that lowers soil pH, improves disease resistance and plant hardiness, lowers water usage. (Bonide Products)

SoilMoist: polymer composts that increase seed germination. (JRM Chemical)

Soil Seal: high-grade latex acrylic soil stabilizer that helps prevent erosion when sprayed on the soil by stabilizing its surface. (Soil Seal)

Stabilizer: an organic soil additive that helps produce a firm, consistent surface under all weather conditions. (Stabilizer)

StockSorb: an absorbent polymer for turf, nursery and horticultural applications that performs well against soil pressure. (Stockhausen)

Sulfur-F: a sulfur product that acidifies soil. (W.A. Cleary)

Super-Cal Liquid Limestone Substitute: improves germination and root development. (Jonathan Green)

Supersoil: a blend of topsoil, regrow, peat moss, mushroom compost and perlite. (Evans Landscaping)

SuperSorb: acrylic copolymer crystals that act as water absorbent to retain water and release as required by the plant(Aquatrols)

Sustane Soil Builders: (Sustane)

TD 1000: a topdressing blend of humus and silica sand. (Harford Industrial)

Terra-Green: a soil conditioner drying agent and topdressing. (Partac Peat)

Terra-Sorb: a super-absorbent polymer called acrilomide that holds and manages water release to the plant. (Industrial Services)

TnG: a product for straight sand topdressing of golf courses and athletic fields. (Harford Industrial)

Top 'N Turf: natural, untreated compost made of finely-ground bark with pH of about 5.0 for greens construction and soil conditioning. (National Bark)

Turface: an athletic field amendment that controls moisture and reduces compaction. (Aimcor)

TurfGrid: a fibrillated polypropylene fiber that stabilizes sand-based sports turf. (Stabilizer)

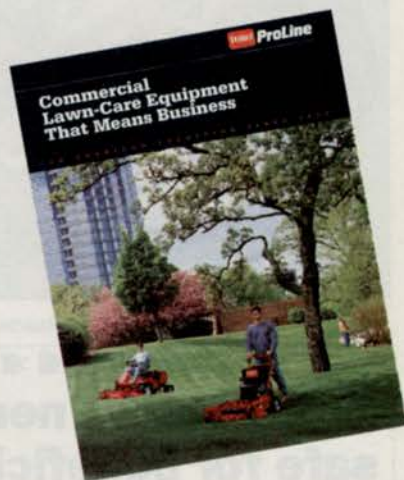
Vita-Aer: an all-natural organic plant material in liquid form that breaks the surface tension and thatch for water penetration into the soil and stimulates root development. (Green Pro Services)

Vital Reactions: a product made of plant materials only that reduces soluble salts, encourages water penetration and stimulates root and rhizome growth. (Nature's Touch)

Viterra Gelscape, Plant-Gel, Root-Dip: (Amereq)

Wet Foot G: a granular wetting agent that contains **Wet Foot L** on vermiculite, to be mixed with peat, soils or soilless mixes for moisture control. (Parkway Research)

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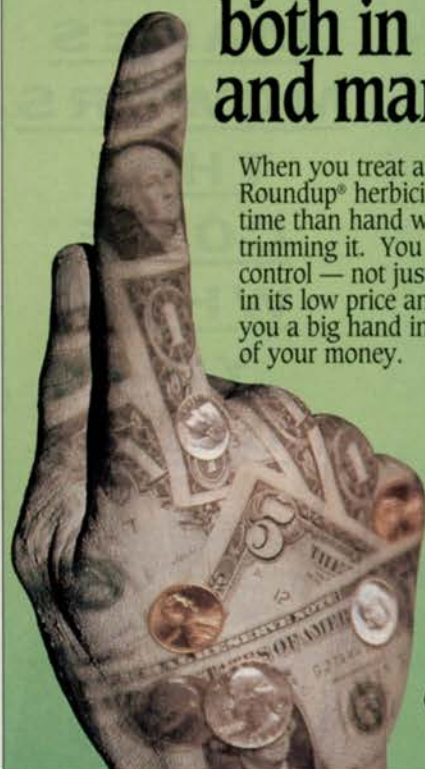
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Landscape Management, November 1994 31

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Circle No. 115 on Reader Inquiry Card

Study shows nematodes safe for beneficial insects

Studies suggest the nematodes are selective when dining out.

By James E. Guyette

■ Using nematodes on lawns will not harm beneficial insects, according to a recent study at Ohio State University.

The tiny roundworms—officially called entomopathogenic nematodes—kill bluegrass billbug larvae, cutworms and sod webworms and are marginally effective against Japanese beetle larvae, which are all common turf pests, says Dr. David J. Shetlar, assistant professor of entomology at OSU. But earthworms, predatory beetles, mites and other beneficial insects are seemingly immune. "These nematodes appear to be selective assassins," says Shetlar.

A lot of the selectivity has to do with the natural habitats of the organisms found in lawns. "Most of the beneficial insects do not really live in the soil where the nematodes are moving around," Shetlar explains.

Clearing a hurdle—The study is among the first to measure the impact of nematodes on non-target organisms, according to Shetlar. He notes that the results are an important vindication for nematodes as a biological pest control.

"It's the first biological alternative that has efficacy that we can recommend," says Shetlar.

New techniques in nematode production have brought down the costs to be more in line with other control agents. "They're able to produce trillions of nematodes a day rather than billions of nematodes a day," he explains, adding that the cost to apply one billion nematodes per acre—the recommended rate—is about \$70.

Nematodes are also becoming available for use on warm season grasses. "There's several nematode types that are being developed for Southern lawns," he reports. Nematodes are especially effective in controlling fleas and mole crickets. "Mole crickets sort of take over the grubs (as a main pest) in Southern lawns," Shetlar says.

It is especially important to discover that nematodes are indeed selective when it comes to which organisms are targeted.

"In the lab, nematodes kill any insect they can get into. In the field, there was concern that they would be no different than an insecticide that kills everything. Thankfully, that's not the case. People who are looking for a selective, non-chemical treatment can use these nematodes," Shetlar says.

Entomopathogenic nematodes kill insects not as parasites, but as agents of disease. A nematode larva enters the insect just as a parasite does. But rather than feeding directly on the insect, it regurgi-



Shetlar: Nematodes most effective in mid-June.

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IND-47082 2/94



larvae. Untreated plots had about 80 bugs per square meter; treated plots had only about 14.

• Nematodes run out of steam pretty quickly. At two weeks after the initial treatment, two-thirds of the "guinea pig" waxworm larvae were infected; at seven weeks, fewer than one-third were infected. "This result means it's important to apply the nematodes when the billbug larvae are feeding in the soil near the turf crowns, usually in mid-June," Shetlar says.

• Most importantly, nematodes appear ineffective against beneficial garden predators and decomposers. Study results show no significant differences between treated and untreated turf in numbers of earthworms, mites, spiders centipedes, millipedes and beetles.

"Within a month after the nematode application, populations of non-target organisms were pretty well normal," Shetlar reports.

"In terms of non-target insects, we were most concerned with above-ground beetles and rove beetles," Shetlar notes. "They're probably the No. 1 predator of cutworm eggs and sod webworm eggs. According to our results, entomopathogenic nematodes should not harm these populations."

Shetlar says that nematodes can present a convenient, economical and environmentally friendly method of turf pest control. For best results, a mid-June application (in Ohio, local weather conditions may vary) is advised. "The best results occur when the lawn is moist from recent rains or just after a watering," Shetlar points out. "I also recommend a generous watering immediately after applying the nematodes."

—The author is a freelance writer based in Cleveland, Ohio.

tates a packet of bacteria, spewing it into the insect's body cavity. The bacteria causes rapid infection, paralyzing and killing the insect within 48 hours.

When the insect is dead, the nematode sets up shop in the carcass, feeding on bacteria and growing to maturity. If both a male and female are present in the same insect carcass, they mate, creating a new generation of infective youngsters. When the food runs out, these larvae leave the original insect and look for others to infiltrate and kill.

For the OSU study, Shetlar and his colleagues, technician Kevin Power and entomologist Dr. Harry Niemczyk, selected three bluegrass/ryegrass turf sites in Northern Ohio—among them Niemczyk's home lawn. Each site was divided in two; one half got the nematode treatment, the other half did not.

Sub-surface placement—The researchers applied the nematodes in mid-June using a sub-surface applicator. This device, a Rainsaver Jr., slit the turf every three inches and injected nematodes to a depth of about one inch. The injection unit was important because it protected the nematodes from damaging rays from the sun, Shetlar says.

To gauge the effect of nematodes on centipedes, spiders, mites and non-target insects, the researchers took soil cores from all sites—treated and untreated—every 10 days. They measured the effect of nematodes on their actual targets, billbugs and sod webworms, by sampling and counting the number of pests in the nematode-treated sites as opposed to the non-treated sites.

The results:

- Nematodes are particularly effective against bluegrass billbug

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HOT TOPICS

N.Y. green groups fight leaf blower laws

Twenty-five complaints prompt controversial legislation in a New York city of 60,000.

WHITE PLAINS, N.Y.—Landscape contractors from New York towns and villages in and around Westchester County are protesting tighter restrictions on leaf blowers.

In September, 357 members of various New York green industry association chapters, nurseries, and product manufacturers and distributors held a rally outside city hall here, hoping that mayor Sy Schulman would hear them out. Schulman gave them about a minute of his time, but promised to hear more at a later date.

Joe Tinelli of the New York Turf & Landscape Association, Inc. (NYTLA) and president of Tinelli Landscape Co., Yonkers, called the rally "massive, organized and diplomatic."

It was also an attention-getter. Tinelli was interviewed later by a reporter for the *New York Times*, and a local television station picked up the leaf blower story for the nightly news.

"We want a compromise," said Tinelli, who claims a recent ban on leaf blowers has been declared unconstitutional in the New York suburb of Peekskill.

"We've contacted an attorney who won the case on the grounds that it's unconstitutional to remove a tool that's essential to a trade," says Tinelli.

Wake-up call—Tinelli says he under-

stands how someone could become upset over excessive noise caused by unthinking operators, but he puts the blame on "the unlicensed contractors who attack a job with three or four leaf blowers" during early morning hours or dusk.

Given the small number of actual complaints about leaf blowers, many wonder whether the problem is real or imagined.



According to Tinelli, only 25 people in White Plains, a city of with a population of 60,000, filed complaints.

The NYTLA says New York green industry associations have spent thousands of dollars on public relations and made many requests for compromise, but are still not being heard. And according to Tinelli, Westchester County landscapers were promised a voice when it came time to draft legislation restricting leaf blower use, but were eventually ignored by legislators.

Contractors seek a compromise which would let them use leaf blowers year-round, but only during certain times of

the day.

Tinelli and others believe the solution is for product manufacturers to continue developing quieter machines, and for operators to use common sense when running leaf blowers.

"We're very aware of (the need for) noise reduction," says Tinelli. "This year, the New York Turf & Landscape Association has an education program dedicated to noise reduction."

Manufacturer involvement—Robin Pendergrast, spokesman for Echo, Inc., says the company has been giving dealers and end-users in more than 200 cities across the U.S. the information they need to operate blowers responsibly. The company's "Be Smart" campaign is meant to eliminate complaints caused by the inconsiderate use of leaf blowers.

According to Pendergrast, advancements in leaf-blower technology continue to result in quieter equipment.

"(Decibel) levels have gone down dramatically and will continue to do so," says Pendergrast.

Leaf blowers save time, water and money for at least three groups: the commercial user; city parks and recreation departments; and the homeowners who choose to pay to have their yards serviced. One industry estimate suggests that a clean-up job that takes six minutes with a leaf blower would take 32 minutes if done with a broom and a rake.

The leaf blower battle has been fought in some states since the late 1980s, but only seven cities have banned the tool completely.

The need for blowers during the grow-

ELSEWHERE

Wise water use in California, page 35

Audubon video is on the way, page 35

Embracing turf certification, page 36

Long list of current events, page 36

ing season could become more pressing as more cities ban yard waste from landfills. Such a ban is under consideration in the city of Yonkers, N.Y.

Westchester County contractors can now use their leaf blowers through November, but the issue will be back in the spring. Kevin Fish, executive officer of White Plains, was quoted as saying he believes some compromise will be reached, and he promised the contractors will get to tell their side of the story.

—Terry McIver

Use blowers responsibly

LAKE ZURICH, Ill.—Echo's "Be Smart" campaign includes the following tips when using leaf blowers:

- Encourage workers to use lower—and quieter—throttle speeds; a full throttle is not always necessary. Try running it at half or three-quarter throttle.
- Avoid neighboring properties, open windows and other places where dust and noise might be a nuisance.
- Develop skill at using blower accessories like misters and nozzle extensions.
- Be polite by promptly cleaning up debris.
- According to the company, some employers tell workers to shut down blowers entirely when people pass by.

—T.M.

Secret to water conservation: intelligent use

SACRAMENTO, Calif.—California's landscaping industry is responding to the state's fourth-driest year on record by using innovative water-conserving techniques borrowed from high-tech experts, says the California Landscape Contractors Association (CLCA).

"As an industry, we are much more concerned and educated about water conservation than we were five years ago," says James P. Everett, CLCA president. "The secret is intelligent use of water. There are practical ways to reduce water consumption by as much as 20 to 40 percent and still protect the vitality of landscapes."

Citing necessity as the mother of invention, Everett says the landscaping industry has responded to more than seven years of drought when landscaping was targeted with mandatory water rationing and limitations on outside watering.

"Healthy lawns and greenery were a convenient symbol to attack by those who thought landscaping was a luxury we

California landscapers accept the challenge of using less water, but keeping the grass beautiful.

could do without," says Everett. "The fact is, landscaping offers benefits, such as fire protection and pollution control, that our state needs now more than ever before."

Examples of high-tech water monitoring cited by Everett: computer software, electronic sensing devices and satellite technology.

Besides CIMIS (California Irrigation Management Information System) weather stations that predict how much to water, the newest technique is "water auditing."

Information obtained in these audits provides landscapers with feedback on the design and installation of irrigation, thus enabling them to install more efficient systems.

"We analyze the performance of a landscape irrigation system," says Patrick Marion, past-chair of CLCA's Water Management Committee. "We look to see if the sprinkler heads are maladjusted or improperly spaced. Sometimes they are tilted so they are too low to effectively spray the grass."

Landscapers are also using water measuring devices like electronic sensors that detect ground moisture and computers to analyze audit results and develop irrigation schedules.

The CLCA was also involved in drafting AB 325, the Water Conservation in Landscaping Act, which took effect in 1991. It requires that all cities and counties have a written water conservation ordinance, unless they can show that one isn't needed.

"We see the act as a tool for assisting the development of new landscape installations," says Jon Ewing, owner of Landtrends, a San Diego-based landscape contracting firm.

Video on Signature Award will be available from N.Y. Audubon Society

WEST BEND, Wis.—A video to promote and inform interested organizations about the requirements and benefits of achieving "Signature Award" status from the New York Audubon Society will be available soon.

The video, being produced by Epic of Wisconsin, features interviews and wildlife footage shot at the Signature Award-winning Collier's Reserve Golf Club in Naples, Fla.

"The geography and environment of every site is different," says N.Y. Audubon Society president Ron Dodson. "This program has guidelines and principles that we both have to follow, but there's a built-in flexibility so (developers) can reach their economic desires, and we can together reach our environmental desires."

For more information, write the society at: 46 Rarick Rd., Selkirk, NY 12158.



Epic of Wisconsin, which shot an Audubon Society video, also produces a video magazine called 'Golf & Environment.'

William Meleen says the CTP course is difficult but fair.



Embracing certification in 'turfgrass'

FAULKNER, Md.—Even after 25 years in the industry, William Meleen admits there's a lot he still doesn't know about lawn care. But, he's willing to learn.

Meleen enrolled in—and completed—the University of Georgia/Professional Lawn Care Association of America national turf certification program. It's believed he was the first ever Certified Turfgrass Professional (CTP).

"I joined the program because I know that if I'm able to tell my customers why something happens in their lawn, then they trust me even more," says Meleen, owner of Action Lawn Service, Faulkner, Md.

"Tough," is how the longtime LCO describes the year-old certification program. "You have to study for it. You won't be able to pass the tests if you don't follow the program." Meleen estimates he spent about 120 hours studying for the course's two tests, the final one he passed in July. He was pleased to score 92 on the two tests. (PLCAA arranged for Meleen to take the tests near his home at Charles County Community College.)

Meleen describes the certification program as up-to-date and comprehensive. In 14 chapters it covers everything from soils to customer communications.

Also among the first graduate CTPs were:

Tony Atchison, The Yard Post, Atlanta; **Victoria R. Barnhill**, Holiday Golf Club, Panama City Beach, Fla.; **John T. Booth**, Athens, Ga.; **Samuel Easley**, Easley's Lawn Care, Inc., Woodville, Ga.; **Larry Ellmaker**, Moyer & Son, Inc., Souderton, Pa.; **Murray R. Neppi**, Sym Company, Seymour, Wis.;

GREEN INDUSTRY EVENTS

What's going on in the industry

NOVEMBER

8-10: Penn State Golf Turf Conference, Nittany Lion Inn, State College, Pa. Phone: Dr. Peter Landschoot, (814) 863-1017 or Pennsylvania Turfgrass Council, (814) 863-3475.

8-11: New York Turf & Grounds Exposition, Rochester. Phone: NYSTA, (518) 783-1229.

11: Landscape Maintenance Assn. Equipment & Supply Show, West Palm Beach. Phone: (813) 680-4008.

11-12: Golf Course Expo, Orlando, Fla. Phone: (207) 846-0600.

12-13: John Deere Team Championship Golf Tournament, La Quinta, Calif. Phone: by invitation only.

13-16: Carolinas Golf Course Superintendents Conference & Show, Myrtle Beach (S.C.) Hilton. Phone: (800) 476-4272.

13-17: Green Industry Expo and annual conferences for **Professional Lawn Care Association of America**, **Associated Landscape Contractors of America** and **Professional Grounds Management Society**, St. Louis, Mo. Phone: PLCAA, (404) 977-5222; ALCA, (703) 620-6363; PGMS, (410) 584-9754.

15: South Florida Chapter, STMA meeting, Mark Light Stadium, Miami. Phone: John Mascaro, (305) 938-7477.

16-18: Composting Council Annual Conference, Washington, D.C. Phone: The Composting Council, (703) 739-2401.

17: California Certified Nursery Professional Exam, Anaheim. Phone: C.A.N., (916) 567-0200.

17-19: Tree Care Industry Expo, Philadelphia, Pa. Phone: National Arborist Assn., (603) 673-3311.

17-20: International Golf Show, Madrid, Spain. Phone: (011) 34-1-350-1564.

18-20: Golf Summit '94, Scottsdale, Ariz. Phone: National Golf Foundation, (407) 744-6006.

19: Women in Horticulture Conference

"Profiting from Integrity," Doubletree Suites, Seattle. Phone: (206) 525-7844 or (206) 937-2815.

22: Alliance for Environmental Concerns Annual Meeting. Phone: AEC, (201) 595-7172.

28-30: North Central Turfgrass Exposition, St. Charles, Ill. Phone: Illinois Turfgrass Assn., (312) 616-0800.

28-30: Southern Turfgrass Assn. Conference and Show, Memphis, Tenn. Phone: (901) 749-5885.

29: "Practical Approaches for Effective Erosion and Sediment Control" Seminar, Orlando, Fla. Phone: International Erosion Control Association, (303) 879-3010.

29: Minnesota Sports Turf Managers Association Turf Seminar. Phone: Tom Rudberg, (612) 962-6545.

29-Dec. 1: Rocky Mountain Turf Conference & Trade Show, Colorado Convention Center, Denver. Phone: (303) 688-3440.

29-Dec. 1: Golf Course Europe, Paris, France. Phone: (510) 526-6922; (510) 526-5387.

29-Dec. 1: New Jersey Turfgrass Expo, Taj Mahal Casino, Atlantic City. Phone: (908) 821-7134.

DECEMBER

6-9: Ohio Turfgrass Foundation Conference & Trade Show, Columbus, Ohio. Phone: (614) 261-6750.

6-8: Georgia Turfgrass Conference & Show, College Park. Phone: (404) 975-4123.

7: Massachusetts Association of Lawn Care Professionals Annual Meeting, Concord, Mass. Phone: (508) 287-0127.

13: PLCAA Winter Workshop, Madison, Wis. Phone: PLCAA, (800) 458-3466.

14: PLCAA Winter Workshop, Pittsburgh, Pa. Phone: PLCAA, (800) 458-3466.

15: PLCAA Winter Workshop, Scranton, Pa. Phone: PLCAA, (800) 458-3466.

Thomas M. O'Kane, Professional Grounds, Inc., Lorton, Va.; **Carl Olson**, Crest Agrow Products, Long Beach, Ca.; **Lou Wierichs, Jr.**, Pro-X Systems, Fox Cities and Green Bay, Wis.

PLCAA introduced the home-study certification program at the 1993 PLCAA Conference in Baltimore. Since then over 300 have enrolled in the correspondence course.

The course is designed for green industry professionals including, but not limited to, lawn care pros, landscapers, golf superintendents, and athletic field and park managers. It meets the pesticide recertification credits in 25 states. Five other states are reviewing the course for credits.

For more information about the CTP

Program, stop by the PLCAA Customer Service Booth #1026 at the 1994 GIE in St. Louis. Or contact PLCAA at 1000 Johnson Ferry Road, NE, Suite C-135, Marietta, Ga. 30068. (800) 458-3466.

—Ron Hall

CORRECTION

Due to a production-related error, the photographs of Tom Mascaro and Eberhard Steiniger on page 39 of our October issue were reversed. We apologize for any inconveniences caused by this error.

INFO CENTER

Useful literature and videos for the green industry

CONTROL WEEDS... "Turf Weeds and Their Control" by Dr. A.J. Turgeon describes new chemistries and techniques for herbicide application, weed taxonomy, ecology and control. Priced at \$60, the book is available from CSSA, ASA headquarters Office; Attn. Book Order Dept., 677 South Segoe Rd., Madison, WI 53711-1086.

TREE CARE SAFETY... The new Tailgate Safety Program is now available from the National Arborist Association. The study program contains 40 lessons in accident prevention, most taking less than 20 minutes to administer. The information contained in each lesson can be put to use immediately. Contact the National Arborist Association, P.O. Box 1094, Amherst, NH 03031-1094; (800) 733-2622.

ALCA PUBS... The Associated Landscape

Contractors of America has a revised ALCA Publication Catalog now available. The free catalog includes descriptions of books on managing finances to worker safety and marketing. Contact ALCA, 12200 Sunrise Valley Dr., Suite 150, Reston, VA 22091; (703) 620-6363.

ORDER NOW! "The Pesticide Manual" is available from The Royal Society of Chemistry and the British Crop Protection Council in November. Much data has been revised for this 10th edition. Cost is \$165. Contact Gill Wood at (800) 473-9234.

BETTER PUBLICITY... The Communication Skills Institute offers the publication, "Take the Mystery Out of Media: Make Your Publicity Newsworthy," for small businesses seeking better relations with the media. Written by Lorraine B. Kingdon, the book is available from the Com-

munication Skills Institute for \$14.95. Contact CSI, 7049 E. Tanque Verde, Suite 302, Tucson, AZ 85715.

GARDEN GUIDES... Ironwood Press publishes a variety of guides to gardening in the West. Titles include: *The Low-Water Flower Gardener*; *How to Grow The Wildflowers*; and *Beautiful Gardens*. Prices under \$15, these large-size paperbacks are beautifully illustrated and clearly explained. Contact: Ironwood Press, 2968 West Ina Rd. #285, Tucson, AZ 85741.

TOOL CATALOG... Stanley Hydraulic Tools has issued a new edition of its hydraulic hand-held tool catalog. It features photographs and descriptions, performance and operational specifications and available accessories. Contact Stanley Hydraulic Tools, 3810 SE Naef Rd., Milwaukee, OR 97267; (503) 659-5660.

RESOURCES & REFERENCES

For Landscape Professionals

New & Best-Selling Books

Turf

- Turf Managers' Handbook**
by W.H. Daniel & R.P. Freeborg
437 pages **LSM-BK-110**.....\$39.95
- Controlling Turfgrass Pests**
by Shurtleff, Fermanian & Randell
449 pages **LSM-BK-220**.....\$56.95
- Turf Management Handbook**
by Howard Sprague
255 pages **LSM-BK-620**.....\$26.60
- Turfgrass: Science and Culture**
by James Beard
658 pages **LSM-BK-630**.....\$62.95

- Turf Irrigation Manual**
by James Watkins
364 pages **LSM-BK-640**.....\$32.95
- 1993 Turf and Ornamental Chemicals Reference**
930 pages **LSM-BK-645**.....\$110.00
- Compendium of Turfgrass Diseases**
by Richard Smiley, Peter Dernoeden & Bruce Clarke
128 pages **LSM-BK-650**.....\$30.00
- Landscape Management's Pocket Seed Guide**
36 pages **LSM-BK-655**.....\$10.00

Trees & Shrubs

- Insects that Feed on Trees and Shrubs**
by Warren Johnson & Howard Lyon
560 pages **LSM-BK-690**.....\$52.50
- The Shrub Identification Book**
by George Symonds
379 pages **LSM-BK-720**.....\$19.50
- The Tree Identification Book**
by George Symonds
272 pages **LSM-BK-750**.....\$17.95

- Diseases and Pests of Ornamental Plants**
by Pascal Pirone
566 pages **LSM-BK-410**.....\$58.00
- Tree Maintenance**
by P.P. Pirone
514 pages **LSM-BK-760**.....\$24.95
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JOB TALK

Recycling vegetation in Alaskan ski country

Alyeska Resort, Sasaki Associates and Evergreen Landscaping do it the old-fashioned way: the hard way, but the right way.

by Leslee Jaquette

■ When Alyeska Resort invested more than \$1 million in the largest vegetation recycling and replanting landscape project in the state, even the moose and deer perked up their antlers.

In an effort to use the resources at hand, management at Alaska's premier ski resort designed an aggressive, multidimensional plan.

Sasaki Associates, which designed the landscape, wanted to use mountain heather removed during trail work to fill in areas affected by the construction of a tram tower. A dramatic helicopter transplanting effort was the climax of that project.

To "marry" 27 acres of new terrain with other parcels, erosion difficulties and summer aesthetics, Alyeska's mountain project manager Bob McBride teamed up with Evergreen Landscaping of nearby Anchorage.

According to McBride, the contract called for Evergreen's 25 workers to harvest and transplant vegetation in a 24-hour period.

To decrease plant shock and give the plants time to stabilize before winter, mid-August was targeted.

Evergreen's workers handled the existing heather like sod, shrink-wrapping and flying 36,000 sq. ft. of it to 2,700 feet elevation within two hours. Four hundred-fifty yards of topsoil were also transported in giant hoppers by tram and then by helicopter, where it was all used as landscaping around the tram station and support tower.

Helicopter costs ran \$800 per hour for 20 hours, but McBride

maintains, "If you make the investment, you need to do it right."

Other landscape issues were handled with equal attention to ecological sensitivity.

More than 13,500 trees and plants were brought to a nursery in the new Alyeska Prince Hotel parking lot, to begin getting acclimatized to their new home, 240 feet above sea level. The 33 varieties included white spruce, Colorado green spruce and quaking aspen. A sophisticated watering system, supplemented by watering trucks, was needed to keep the plants alive through Alaska's driest summer on record.

The nursery had a complete plastic pipe irrigation system on a gravel base. Because some of the plants were fairly large, McBride's staff set up risers with overhead sprinklers to simulate nature.

An extensive drainage system also had to be built because of torrential rains that can result in up to one inch of water per hour. Starting in May, 1993, drains were added to individual trees and shrub beds bringing the total number of drains to about 8,000.

Careful consideration, too, was given to equipment that would minimize impact to surrounding vegetation. Using lightweight baby backhoes with rubber tires, McBride's team dug narrow trenches for the perforated pipe and gravel curtain. Architects felt the need, McBride says, to take every precaution to preserve neighboring 200-year-old trees while planting the new ones.

To further capitalize on hardy, native plant species, McBride also bought a 500-gallon hydroseeder to plant \$100-a-pound alpine bluejoint grass and wildflowers. "We must harvest our own seeds," McBride observes. "Besides, natural seed is the healthiest. The key is to know when to harvest the seed and how to store it."

—Leslee Jaquette is a freelance writer based in Washington State. She is a frequent contributor to LM.



Topsoil and Alaskan mountain heather were transported both by tram (left) and by helicopter (right) to the area around a new tram station and support towers where the vegetation was to be transplanted.

(Photos by Tom Evans of Evergreen Landscaping)

GREEN INDUSTRY SHOWCASE

Weather station compact, stores data regularly

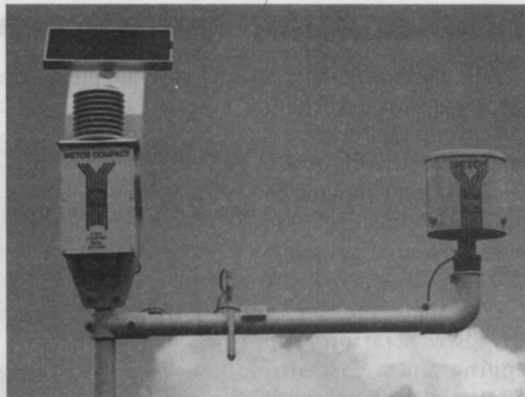
The Metos-Compact weather station reports air temperature, relative humidity, rainfall and soil temperature.

A photocell and two leaf wetness sensors are part of the station, as well as a solar panel to allow continuous operation; a serial communications port for data transfer to personal computers by direct line; telephone or radio modem; and comprehensive communication and data management software.

Metos automatically reads all sensors every 12 minutes and stores the data for retrieval by the user any time through any portable or desktop computer.

A special introductory price of \$2495 includes all hardware and software. The Metos-Compact and other Metos weather stations are available from Pest Management Supply, Inc. of Hadley, Mass.

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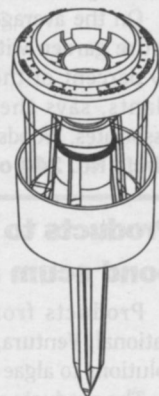
Rain gauge tells when water has evaporated

The Moisture Smart watering gauge is an evaporimeter which measures water evaporation to determine when to water and the right amount of water needed for plants and turfgrass.

The gauge measures net evapotranspiration rate and indicates the net amount of water required to replace evaporated moisture.

The gauge is very economically priced, and is appropriate for turf and landscape, sun and shade, and all types of sprinklers.

Circle No. 242 on Reader Inquiry Card



Sod cutter: great traction, easy handling

Ryan's Jr. Sod Cutter has been engineered for maximum traction and self-propelled action.

Ninety-five percent of its weight is on the knobby tread drive wheels, for good balance, easy handling and responsive turning.

Powered by a 7 hp engine, the sod cutter cuts up to 135 feet of sod per minute, up to 2.5 inches deep, at widths of either 12 or 18 inches.

The unit weighs 135 pounds.

The Tote Trailer is available for easy transport.

Circle No. 239 on Reader Inquiry Card



New engines are quick starters, smooth operators

The Command 25 hp vertical shaft engine from Kohler Co. features Kohler's Power-Bore cylinders, engineered to last longer, provide more power, conserve oil and reduce exhaust emissions.

Sound reduction is also a plus, thanks to computer-designed and balanced crankshafts and cams; first-order forces are eliminated and engine vibrations reduced.

The engine weighs 94 pounds, and features Smart-Choke and Smart-Spark for quick starts in all kinds of weather.

Circle No. 243 on Reader Inquiry Card

Root systems establish faster, turf more tolerant

Roots Dry Formula (2-4-2) fertilizer for plantings and stressed lawns contains a special blend of natural nutrients, growth enhancers and soil conditioners.

The Roots Dry Formula establishes a deep, hardy root system to ensure that all new plantings get off to a healthy, vigorous start. Besides increasing water and nutrient uptake, Roots Dry Formula stimulates beneficial microbial activity in the soil.

In turf, the product's positive effect on heat and drought tolerance helps stressed

lawns survive the summer, without pushing top growth. Newly-installed sod knits down faster, and new seedings and overseedings also establish faster, according to Roots.

Circle No. 240 on Reader Inquiry Card

Seaweed biostimulant gives 3-D approach to turf care

3D is a concentrated turfgrass biostimulant derived from pure, cold process seaweed and fortified with proprietary humic acid and plant growth nutrients.

It is designed to give the turf professional a "three-dimensional approach" to turf condition-

ing with foliar enhancement, physiological integrity and foundation fortification, even under adverse environments.

Circle No. 241 on Reader Inquiry Card

Soap-based repellent keeps the deer away from plants

Bye Deer is advertised as the first and only soap-based deer repellent registered with the EPA.

The Bye Deer sachets protect plants and shrubs by diverting the animals away from the plants without changing their roaming patterns.

They work best two to four to a shrub,

PRODUCT REVIEW

depending on the size of the shrub. When staking beds of flowers, set the sachets at bud level randomly throughout the bed and continually raise the sachets as the flowers grow.

On the average, the cost of staking an entire garden with Bye Deer amounts to 10 percent of the purchase price of the plants, says the company, Stoll Road Associates, Woodstock, N.Y.

Circle No. 244 on Reader Inquiry Card

Products to prevent or cure pond scum and algae

Products from Enviro-Reps International, Ventura, Calif., are developed as solutions to algae in ponds and lakes.

The products are new and effective and safe ways of preventing and controlling polluted water. They are available as curatives or preventives.

BRF-20S is a soil inoculant and fertilizer that will not supply nutrients to the water, but supplies vital nutrients to the soil.

"Tint-It-Blue" is developed to block ultra-violet rays. Ponds and lakes take on a light sky-blue tint.

"Rapid-Klear" is a coagulant that causes the green gunk and other suspended particles to drop to the bottom.

"Super-Bugs" is a special formulation of bacteria and enzymes which feed on dead organic matter.

Circle No. 245 on Reader Inquiry Card

Greens ventilator powered by irrigation system water

Aeolus, Inc., is the exclusive dealer of Ramfan Corp.'s "Turboventilator" WF-20.

The ventilator is water powered, and uses water from the irrigation system to drive the turbine.

The unit will also mist the greens as well as cool them with air.

Circle No. 246 on Reader Inquiry Card

**Landscape
Management**
...We know your turf!

Bunker pump bails water at 280 gpm

The Bunker Pumper floating portable pump, manufactured by Otterbine, is an efficient, easy method of getting water out of your way fast. This self-priming pump removes water from sand traps and any other low-lying area.

Capable of starting in as little as three inches of water, the unit can pump 280 gpm.

Features include a Briggs & Stratton 8 hp engine and a cast aluminum alloy pump with built-in suction screen and skids. The pump, weighing only 85 pounds, is easy to handle.

**Circle No. 247 on
Reader Inquiry Card**



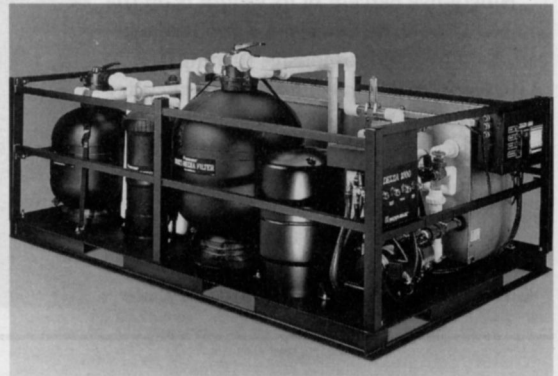
Filtration system treats wash-water for re-use

Landa, Inc., has manufactured a full line of environmental equipment for golf courses, including a closed-loop wash-water recycling system.

The Delta-1000GC is a filtration system specifically designed for recycling wash water with heavier-than-usual loads of grass clippings and pesticides. The unit treats wash water at a rate of up to 10 gallons per minute (gpm).

Other products from Landa include environmentally safe chemical mixing and loading sheds, fiberglass collection pits, catch basins and sump pumps, and mobil grass and sludge carts for easy disposal of debris.

**Circle No. 248 on Reader
Inquiry Card**



Snow plowing easier with heavy-duty blade

The Myer Snow blade developed by Excel Industries, Inc., works off an Electro-Touch Control System, for easy, positive control over the snow blade motion and angle.

Among its other convenient features, illuminated buttons make it easy to raise, lower and angle the blade.

**Circle No. 249 on Reader
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