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# AS WE SEE IT

TERRY McIVER, MANAGING EDITOR



## Natural turf, hort therapy and other musings for the month

The University of Missouri will soon replace its "concrete" football field with natural turf—good news for players and athletic department budget-balancers. Medical costs are high enough without avoidable sports injuries. The switch is happening at schools across the U.S.

How ironic: artificial turf was celebrated as being so much cheaper to maintain than natural turf (which, by the way, is not true) and look at what happened. Costs from injuries go through the dome.

Get ready for a rough few years if you're an athletic field manager. Enrollment is down at many colleges, and that means budgets ain't goin' nowhere but maybe down.

You've got to invent new ways to raise money from casino nights to field rentals. There should be a way to increase athletic field maintenance dollars, especially if field use is on the rise.

Dr. Tim Bowyer of Southern Turf Nurseries, for instance, knows of athletic departments that sell off pieces of the old field. According to Bowyer, alumni are happy to pay "big money" for a clod off the old field (not to be confused with a chip off the old block), especially if the school has a strong football tradition.

### Hort therapy

When we first heard about "horticultural therapy," the term made me cringe from the "New Age" connotations it conjured up. But this is different. Douglas Airhart, associate professor at Tennessee Technological University, says horticultural therapy helps rehabilitate disabled or otherwise ill persons through contact with plants.

"Most gardeners know the soul-reviving powers of gardening, the excitement of the first bloom, and the therapeutic exercise involved in hoeing, weeding and pruning," says Airhart.

"Today, trained horticultural therapists use the healing powers of gardening and horticultural activities to help people

learn to help themselves, in hospitals, nursing homes, schools, prisons, botanical gardens and flower shops."

Airhart says hort therapy helps to improve self-esteem, social interaction, intellectual stimulation and emotional development.

Not to get all fuzzy wuzzy here, but working with plants—even if it's as simple as transplanting a fern to a larger pot (the extent of my own involvement and expertise in horticulture)—seems a pleasant-enough thing to do.

Apparently, the therapeutic value of horticultural pursuit is "rooted" (sorry, couldn't resist the pun) in ancient Egypt. In the U.S., says Airhart, it was common for 18th century mental institutions to employ patients in the growing and harvesting of crops on the farmland.

For more information, contact Dr. Airhart at (615) 372-3288.

### An industry's loss

Finally, the green industry lost an ally and practitioner of rational, educated debate on environmental issues with the death in December of Dixy Lee Ray.

Ray, a former governor of Washington state, wrote two books over the past few years dealing with common sense and environmental protection. "Trashing the Planet" is a well-written and fact-filled reference in the debate over what man is supposedly doing to the environment in the name of progress.

Ms. Ray and her common sense will be missed.

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# LANDSCAPE MANAGEMENT

'WE KNOW YOUR TURF'

FEBRUARY 1994 VOL. 33, NO. 2

## COVER FEATURE

### 12 Rebuilding the soil

Where do you start when you want healthy turfgrass and landscape ornamentals? With the soil. So if your soil isn't up to snuff, here's what to do.

*Ron Hall*

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Thatch build-up can rob turfgrass plants of valuable nutrients and siphon water from the root system. Here are some mechanical and chemical dethatchers you might consider.

*Terry McIver*

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Critics of mulching mowers have been too harsh, says this University of Georgia expert. They are here to stay, because they're helping save the environment—in more ways than one.

*Jerry Roche*

### 20 Budget woes

Due to many changes—both good and bad—today's sports turf manager has to budget wiser, work smarter and communicate better.

*Terry McIver*

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Can you visualize it, before it happens? That's the first step toward actually selling the deal of your dreams, says marketing guru Joel Lerner.

*Jerry Roche*



### 28 Motivation and productivity

'If you rule with an iron fist, you get either malicious obedience or gleeful insubordination,' this expert says.

*Jerry Roche*

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Ask your employees what they want and need for the company, solicit their suggestions—and then listen.

*Ed Wandtke*

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Because of the way NatureScape is run, it can adjust to the needs of its clients, and keep them happy.

*Jim Guyette*

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One leak in itself is not dangerous to the well-being of your company, but many leaks can lead to disaster.

*Dan Sautner*

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Powering your business with the new computers is not hard to learn. With the advent of recent user-friendly programs, mastering computers is easier.

*Bess Ritter May*

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Early spring is a time to review your fertilization program. Did your turf flourish last season, or was growth poor? Was it non-responsive to fertilization?

*J.B. Sartain, Ph.D.*

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The key to pruning is knowing the difference between heading and thinning, says Dr. Gary Wade of the University of Georgia.

### 54 Turf in shade

Turfgrasses need at least four hours of full sunlight per day. You, however, can make certain decisions that will help turf in shady areas stay healthy.

*Joseph M. DiPaola, Ph.D.*

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The Merit Club has been granted a government easement, preserving it as open space for perptuity. The course includes 30 acres of wetlands, a 30-acre savannah and a two-acre tree nursery.

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This is a difficult aspect of managing high sand content sports fields and golf greens, and the related problems can be as insidious as any faced by a turf manager.

*James Latham*

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Consultant Charles Vander Kooi says you don't start making a profit until you pay your overhead, otherwise known as 'the bill in the night.'

*Ron Hall*

### 66 Becoming certified

Professional turfgrass certification is finally here, thanks to a partnership between the University of Georgia and the PLCAA. Here's the deal on CTPs.

*Ron Hall*

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According to statistics from various sources—the Outdoor Power Equipment Institute, Irwin Broh & Associates and Green Exports USA—the industry goes well, thank you.

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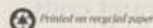
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LANDSCAPE MANAGEMENT (ISSN 0894-1254) is published monthly by ADVANSTAR Communications, Inc. Corporate and editorial offices: 7500 Old Oak Blvd., Cleveland, OH 44130. Advertising offices: 7500 Old Oak Blvd., Cleveland, OH 44130; 1333 N.W. Norcross, Seattle, WA 98177. Accounting, advertising production and circulation offices: 131 West First Street, Duluth, MN 55802. Subscription rates: one year, \$39, two years \$58 in the U.S.; one year \$66, two years \$99 in Canada. All other countries: one year \$130, two years \$195. Current issue single copies (pre-paid only): \$4 in the U.S.; \$7 in Canada; elsewhere \$12; add \$3.50 per order for shipping and handling. Back issues, if available, \$10; add \$3.50 per order for shipping and handling (pre-paid orders only). Office of publication: ADVANSTAR Communications, Inc., 131 W. First St., Duluth, MN 55802 and additional mailing offices. Copyright © 1994 by ADVANSTAR Communications, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher. Canadian G.S.T. Number: R-124213133. POSTMASTER: Send address changes to Landscape Management, P.O. Box 6198, Duluth, MN 55806. Revised date: November 30, 1993.



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# ASK THE EXPERT

DR. BALAKRISHNA RAO



## Determining tree health and stability

**Problem:** One of our clients has a large, 3½ ft. dbh oak tree in their yard close to a swimming pool. This tree has a basal root rot and the tree is leaning towards the pool slightly. Is there some way to find out how strong the tree is, and whether or not it can be saved?

**Another tree in the neighborhood died last year, possibly due to a similar problem. (Ohio)**

**Solution:** Several disease-causing agents can cause root rot and make trees unstable. Depending upon the health of your trees, this could be a potentially hazardous tree and may be a liability problem.

To determine the tree's health, contact a certified arborist with experience in dealing with hazardous tree evaluations. The extended type of root rot and/or possible internal decay/cavity need to be examined before providing any preservation treatments.

After the evaluation, if the tree has good supporting tissues, then consider providing cultural treatments, including proper fertilizing, mulching, aerating and selective pruning to help improve the plant's health.

If the crown is very heavy, selective pruning should help air movement and reduce the risk from storm damage.

In general, root rot diseases are difficult to manage. If the disease is caused by fungi like *Phytophthora sp.*, Subdue or Aliette fungicide treatments might be beneficial. If the root rot disease is caused by *Armillaria sp.*, the causal agent of shoestring root rot, no known fungicidal treatments will manage this. General recommendations include removing the soil from the base of the tree and root flare, and opening the affected area to allow it to air dry. This will help the tree produce wood tissue faster. Before winter, put the soil back on the root flare to protect it from low temperature injury.

For all practical purposes, in my opinion the tree should be considered unstable if there is any basal rot or decay. If it is a potential liability issue, then removing the tree might be a good idea.

## Are pesticides weakened by high pH?

**Problem:** We understand that certain pesticides can break down rapidly if the pH of the water in the mixture is above 7.0. Is the insecticide Sevin subject to this problem? If so, what effect will it have on pest management results? Also how long can a treatment mixture be retained and used? Sometimes, due to rain or other problems, we may not be able to use pre-mixed solutions. (New York)

**Solution:** Many pesticides are sensitive to degradation by the chemical reaction—alkaline hydrolysis—when mixed with water containing a high pH. This reaction and degradation is commonly experienced with carbamates or organophosphates. With some exceptions, the degradation process is generally faster with carbamate pesticides like Sevin than with organophosphate pesticides such as Dursban.

Since you are concerned with Sevin insecticide, the following

information should help you better understand the problem. Laboratory studies with Sevin brand carbaryl showed the following rates of degradation based on half-life of carbaryl under different pH ranges.

Spray pH	Carbaryl half-life
3.0	Stable
5.0	Stable
6.0	Stable at 25° C; 29 days at 35° C
7.0	10.5 days at 20° C
8.0	1.3 days
9.0	2.5 hours
10.0	15 minutes

In reviewing the above information, it appears that, for optimum treatment results, it is better to have a pH maintained closer to neutral or lower. As you can see, even at pH 8.0 the material's half-life would be 1.3 days, which means it should be good for part of the following day if you mixed the previous day. However, if you can maintain the pH of 7 (neutral) the shelf life can be extended to 10.5 days at 20° C.

A Rhone-Poulenc company representative says that the more dilute the spray solution and/or the higher the temperature of the spray mix, the greater and more rapid are the effects of pH.

Read and follow label specifications for better results.

## Dylox not labeled for chinch bugs

**Problem:** Can we use Dylox granular insecticide to manage a chinch bug problem in lawns? (Pennsylvania)

**Solution:** The Dylox 6.2 granular insecticide label does not include chinch bug. Although those who have used Dylox for grub control feel that it gives some level of control of chinch bugs also. However, Dursban has been known to better manage chinch bugs. I suggest using other insecticides since Dylox is not labeled for chinch bugs.

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

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