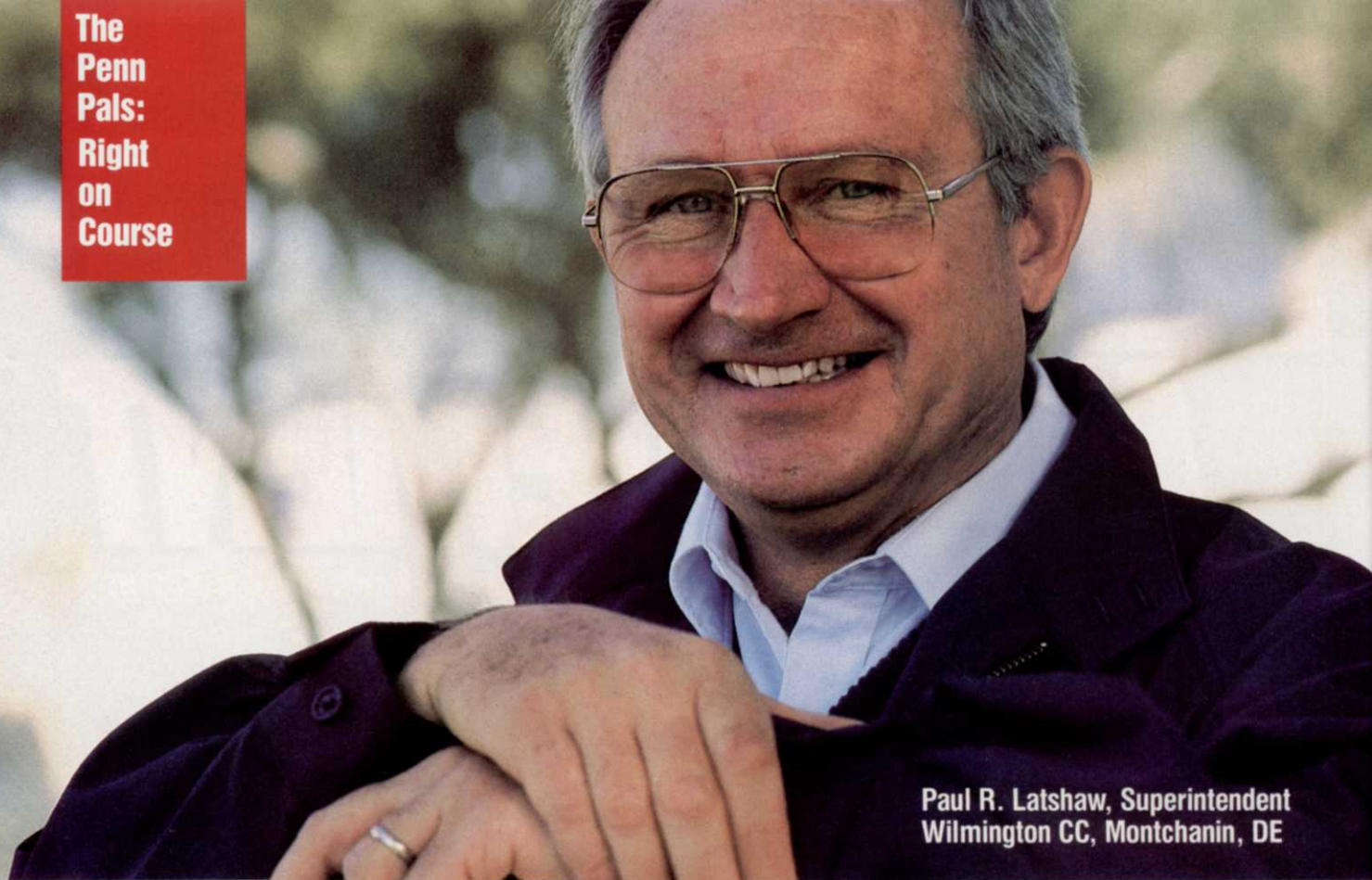


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Paul R. Latshaw, Superintendent
Wilmington CC, Montchanin, DE

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AS WE SEE IT

TERRY McIVER, MANAGING EDITOR



Why didn't this book get more media attention?

Many of our readers are skeptical when it comes to stories about how industry is destroying the environment. Some of the skepticism comes from the fact that they make their livings by caring for the earth. But they also feel a righteous indignation, because they know that the facts are being twisted or not reported.

There is, however, a book that explains exactly what is and is not happening to the environment, and it would make a great gift for special clients: *Trashing the Planet* by Dixy Lee Ray and Lou Guzzo (1990, Regnery Gateway Publishers, Washington, D.C.) Ray once headed the Atomic Energy Commission, was governor of Washington, and has been associated with the U.S. Bureau of Oceans. She's also taught zoology at the University of Washington. Guzzo is a tv/radio/newspaperman and author.

Trashing the Planet is loaded with factual information refuting every eco-crisis you've come to love over the years:

The greenhouse effect—If the severe winters of 1978, 1982 or 1989 didn't convince you that the earth is *not* overheating, consider that, according to Ray, the computer models used to predict global warming are too simplistic and contain much guesswork. There also are variables that affect temperature that we can't control: ocean temperature; currents; volcanic eruptions; solar activity.

And while reduction of CO₂ is advisable, the great fluctuations of earth's temperature cast doubt on the belief that man's increased carbon dioxide output is causing global warming.

The ozone layer—As Ray explains, the thickness of the ozone layer changes periodically. Natural layer fluctuations are about 15 percent, and brief.

"The term 'ozone hole,'" writes Ray, "is misleading, since it persists for only a few weeks. The Antarctic ozone 'hole' grew during the early 1980s, becoming large in 1985, smaller in 1986, and reaching its

greatest size in 1987. In 1988, the 'hole' did not appear as expected. It was finally discovered—only 15 percent as large as predicted and displaced over the ocean."

Ray also reports that penetration of ultraviolet light reaching the earth's surface has been decreasing up to 1.1 percent each year.

Pesticides—The amount of natural pesticides we eat every day is at least 10,000 times the level of pesticide residue from agricultural use of synthetics.

Acid rain—There are many sources: decaying organic matter in swamps and wetlands; volcanoes; lightning. Man-made sources have been reduced by more than 40 percent since the Clean Air Act of 1970. Other man-made pollutants include volatile organic compounds, ammonia and hydrocarbons. But insects and disease have combined to kill more trees than any man-made source.

Man's stewardship is far from perfect, as Ray admits. But the point of much of *Trashing the Planet* is that change—and taxpayer-funded clean-up programs—must be based on *fact*, not assumptions, and science must be allowed to play its part in further developments and solutions.

If you've not read *Trashing the Planet*, pick up a copy. The science is easy to follow, and it contains common sense we can all understand.

What you're looking at is a way to go an entire season on a single herbicide application—a control zone in the top inch of soil that keeps weeds from

one application gives you up to eight full months of control. If you like what Surflan does, but prefer a granular form, you can use XL* herbicide. It



Surflan is so mild it can be applied over the top of delicate ornamentals.

our 40-page book, The Nursery And Landscape Guide To Responsible Pest Management. It also contains information on better ways to con-



Actually, the most this picture is contain

germinating all season long. It can greatly reduce your use of post-emergence herbicides and hand-weeding in your ornamentals.

contains the same active ingredient as Surflan. Apply it in the spring and you'll get a full season of broad-spectrum grassy weed

How To Make Your First Roundup Your Last Roundup.

Here's a way to make your first application of Roundup herbicide last all season. Mix 3 oz. of Surflan per 1000 square feet with ¾ oz. of Roundup per gallon of water and apply when weeds are less than 6" tall. Roundup will knock the weeds down, and Surflan will keep them from coming back for the rest of the season.

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It controls both grassy and broadleaf weeds. A single application lasts up to eight months. And it's available as a sprayable or in a granular form.

bicide. Surflan is, in fact, so gentle that you can spray it directly over the top of delicate ornamentals. Yet

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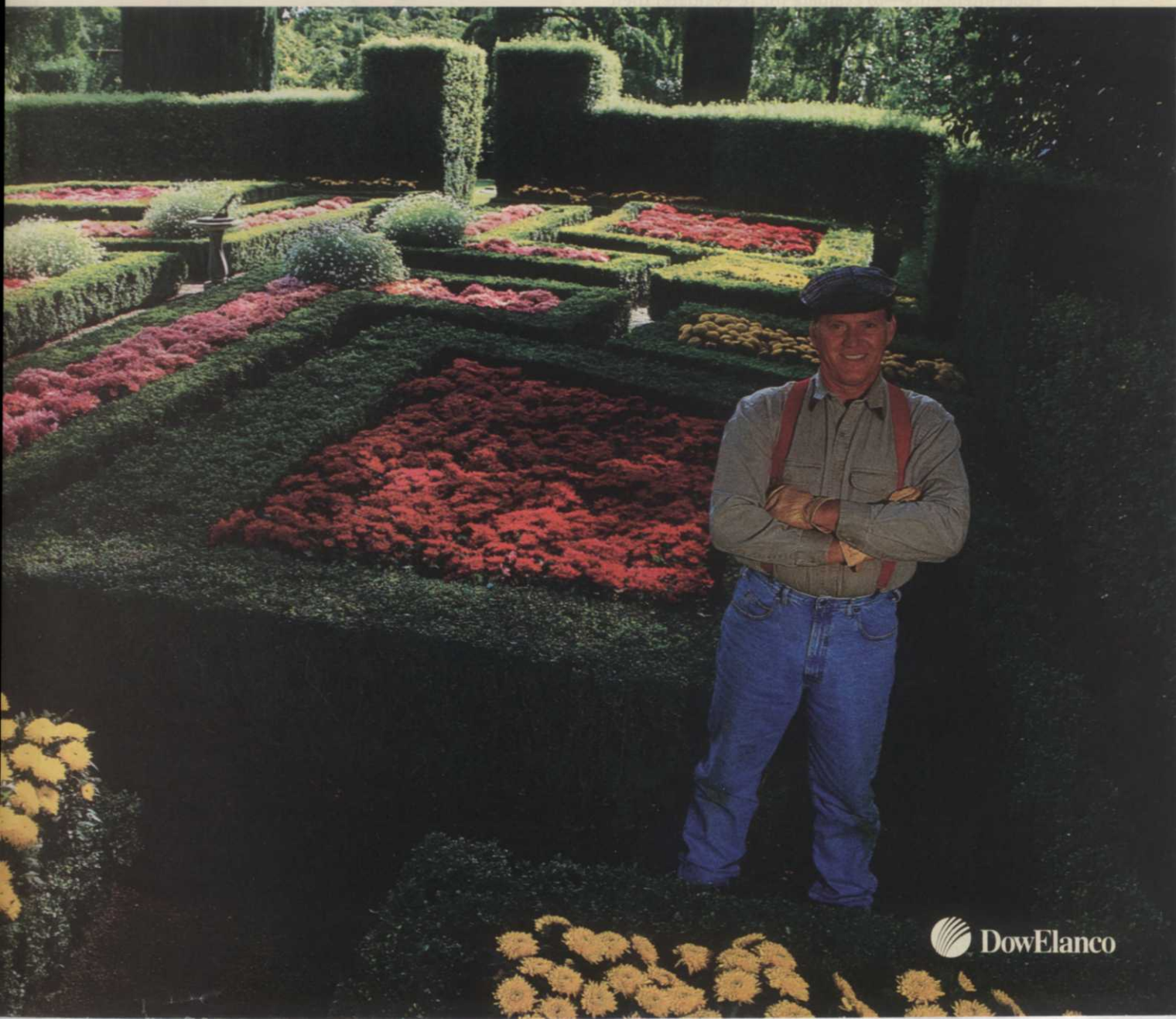
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st beautiful thing about ned in the top 1" of soil.



LANDSCAPE MANAGEMENT

INCORPORATING LAWN CARE INDUSTRY

JUNE 1992 VOL. 31, NO. 6

COVER FEATURE

11 Cover story: Environmentally sensitive golf courses

The 'Decade of the Environment' is prompting many landscape managers—particularly golf course superintendents—to evaluate (or re-evaluate) their impact on the environment.

Jerry Roche

15 LM Reports: Chippers/shredders

Chippers and shredders—from compact homeowner to commercially rugged pull-behind models—allow landscapers and golf course superintendents to recycle landscape debris, often on-site. They also offer landscapers another add-on service sales opportunity.

Jerry Roche

22 Shoot grass, climb the ladder

Pictures are a good way to document your progress on a new project, or to help you climb the career ladder.

A. Douglas Brede, Ph.D.

24 Healthy football turf

Follow the head groundskeeper of the Chicago Bears as he outlines his year-round program for making sure football fields are healthy and playable by autumn.

Ken Mrock



TECH CENTER

34 Summer fertilization

Match nutrient applications to the plant's growth: more fertilizer in the fall and spring. But it's important to maintain some growth during the summer.

David Wehner, Ph.D.

LAWN CARE INDUSTRY

38 Whither ChemLawn?

Tru-Green offers to buy beleaguered ChemLawn from Ecolab, making it the largest lawn care company in the world. The announcement generates more questions than it answers.

Ron Hall

44 Customer, employee education

Newsletters, videos and radio can help sell your company to the public, but well-trained, responsible employees are your company's best calling card.

Brad Johnson



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BPA ABP



HOT TOPICS

48 Landscaper unearths bones

Van Zelst Landscaping turned preservation of a wetland area into a national news event when dinosaur bones were found in an excavation this spring.

50 The D-I-Y debate

The debate continues over whether do-it-yourselfers should have to post lawn chemical applications, just like professionals must, by law.

51 More complete labels?

The current definition of macro-nutrients for turfgrass fertilization should be modified to include sulfur, claims a letter-writer.

DEPARTMENTS

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Cover photo of *The Standard Club*, located in Duluth, Georgia was supplied courtesy of the United States Golf Association (USGA) Green Section.



You might think using less insecticide means you'll have to put up with more insects. But that's not necessarily the case. Because *how* you use your insecticide is as important as *how much* you use. With

the right tactics, you can use a lot less and still get excellent results.

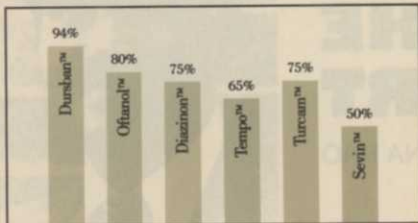
Here's a good example. By mixing insecticide with insecticidal soap, you can reduce the amount of insecticide you need on your

ornamentals by about fifty percent. Insecticidal soap controls most soft-bodied insects and mites. By adding insecticide, you'll also take care of tougher insects, like scales and worms. University studies



A few ways to balance with your love for the env





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suggest you may get better control than you get with insecticide alone.

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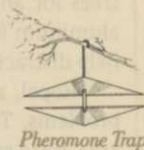
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Dursban is available in liquid, dry flowable, granular and fertilizer formulations. *Trademark of DowElanco.
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Why Adults Should Spend Time Catching Bugs.

If you want better results from the insecticide you use, insect traps can help. They allow you to find out when certain pest insects are present and time your insecticide applications accordingly. Insect traps are inexpensive, easy to use, and they'll help you get greater control using less insecticide.



Pheromone Trap



Pitfall Trap

self can also make a difference.

After all, different insecticides work at different rates. Which is why Dursban® insecticide could be your best choice.

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ASK THE EXPERT

DR. BALAKRISHNA RAO



High pH challenges spray program

Problem: In our tree care spray program we are having pesticide mixing problems because of high pH. How do we solve this problem? (NY)

Solution: Certain pesticides can break down rapidly through a process called chemical hydrolysis when exposed to high pH of mixing water. Chemical hydrolysis takes place faster as the pH and temperature of mixture increases. Some insecticides can be hydrolysed, even within an hour after mixing if the water pH is high. Check with the manufacturers.

It is important to determine the pH of the mixing water. To lower the pH of water, buffering products such as phosphoric acid, hydrochloric acid, mono-ammonium phosphate (MAP) or diammonium phosphate (DAP) can be used. The first two products are seldom used because of handling and safety reasons. MAP and DAP are preferred because of ease of storage, mixing, handling and safety. These products can also serve as the source of nitrogen and phosphorus.

Reports indicate that one-to-two cups of MAP per 100 gallons of mixture is sufficient to help solve most hydrolysis problems. However, for individual product and different pH ranges it may be necessary to do some mixing and testing on a small scale.

It is also important to follow proper mixing guidelines. Always put 1/2 to 3/4 of desired volume of water into the tank first, then add the buffering agent with proper agitation. Then add the wettable powders, flowables and emulsifiable concentrates, *in that order*. Fill with water to the desired volume. Read and follow label specifications for best results.

Managing *Phytophthora* root disease

Problem: We lost a number of azaleas and rhododendrons in some of our clients' properties. We think the problem is related to *Phytophthora sp.* root rot disease. For the remaining plants we plan to use Subdue fungicide treatment. Is there some way we can eliminate or minimize the *Phytophthora* fungus in the soil prior to replanting? (MI)

Solution: *Phytophthora sp.*, the causal agent of root rot disease on azaleas and rhododendrons, can be a destructive pathogen in poorly drained, heavy clay soil. In this situation, plants should be planted slightly higher to overcome the drainage problem. You may have to use a *Phytophthora*-specific fungicide, such as Subdue or Aliette to manage the problem. Areas which are dead due to *Phytophthora* activity can be fumigated prior to planting new plants. Make sure there are no roots of healthy desirable plants within 3 to 4 feet from the diseased plants. If the landscape area is large enough, then you can use soil fumigants like Vapam. Vapam is a water-soluble liquid which will be converted to gaseous fumigant when applied to soil. The material can be moved downward with post-watering.

To be sure the planting site is safe to replant, run a bioassay. Plant indicator plants like tomatoes in the treated area and cover with a five-gallon bucket. Keep the plants covered overnight; remove the bucket and examine them. If they are healthy, the soil is safe to plant. If the plants are wilted, it indicates that the soil still contains Vapam, and planting should be delayed. Repeat until the soil is found to be safe to plant.

Read and follow label specifications for better results.

Reader resents chemical advice

Problem: Even as a forester, I am disheartened to read your response to the problem of Sapsucker damage to birch trees in the April 1991 issue. You obviously work for the interest of chemical corporations rather than that of 'Mother Nature' by encouraging the use of chemical pesticides to kill insects that are a necessary food source for this bird. If everyone followed your advice, then we may have a beautiful supply of birch trees, but no sapsuckers. I must just be different from most of your readers, in that I enjoy nature as it was meant to be, not what some would like it to be. It sounds like the real 'suckers' are your subscribers. (A reader)

Solution: Thank you for your comments. I understand your concerns; however, I disagree with your conclusion about my answers concerning the question, "What can we do to prevent injury from sapsuckers on birch trees?" The following is an excerpt from my suggestions:

"...if the problem is really objectionable, your best approach is to distract birds from feeding on trunks. Consider treating your trees for any insects such as borers. Mechanical devices such as aluminum foil wrapping or tying a pie pan to the trunk may also help distract birds from attraction to susceptible trees.

"Ropel, a chemical repellent, has label registration for bird problems. Try this on a very small area before trying on a large area. Read and follow label specifications for best results."

I provided several options to deal with the problem. As you indicated, your interest is different from others, particularly the person who has asked the question.

As a plant health care practitioner, my objective is to help keep the ecology, and preservation of environmental beauty.

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

Questions should be mailed to "Ask the Expert," *LANDSCAPE MANAGEMENT*, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.