

# Lessons from the Lorax

*The golf industry would do well to pay attention to sage advice from Dr. Seuss.*

by FRANK S. ROSSI, Ph.D.

WHILE gazing out his window at the north coast of San Diego, Theodore Seuss Geisel noticed an endless landscape of "condominiums and look-alike houses." In his eyes, the ever-expanding metropolis exemplified the public's indifference to the environment. After reading many "dull things on conservation, full of statistics and preachy," he decided to make the subject more amusing by having it come to life in a child's story. This difficult task eventually led to Dr. Seuss's first serious case of writer's block.

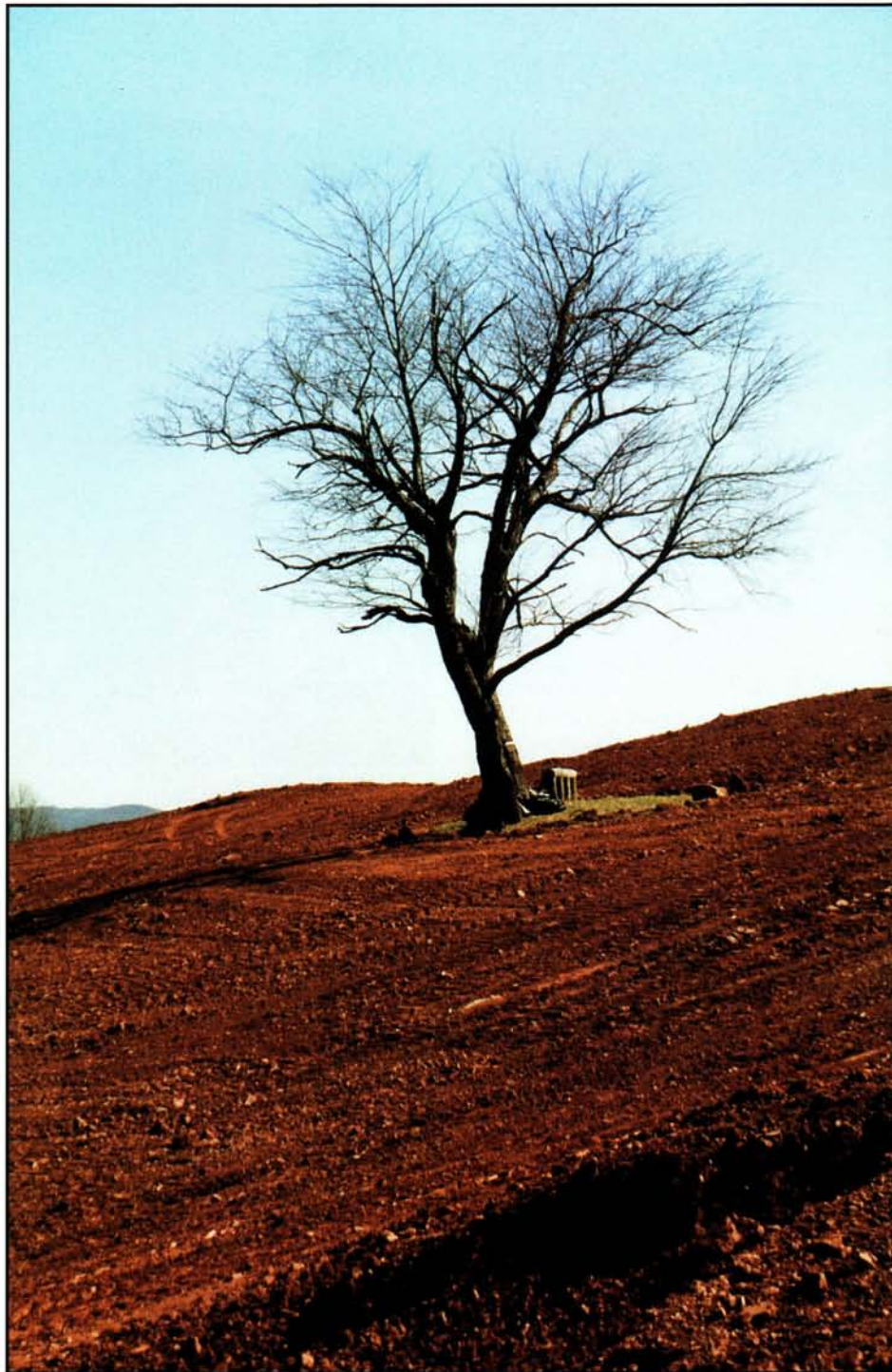
To escape the concrete jungle of southern California, Dr. Seuss took a trip to the Mount Kenya Safari Club in East Africa. While sitting by a pool, he saw elephants walk across the mountain. The elephants "broke the logjam" and that afternoon 90% of *The Lorax*, a piece of environmental propaganda, was completed.

The story of the Lorax is a polemic about pollution, impassioned and bristling with confrontation and name-calling. Its main character, a Lorax, is a protagonist who speaks for conservation. On the opposing side is the greedy old Once-ler who tells a young boy how a town is ruined when the magnificent Truffula trees are cut down to knit Thneeds, "a fine something that all people need."

The result of removing the Truffula trees is "smogulous smoke" that causes a "cruffulous croak" and "gluppity glup" that chases the humming fish to "search for water that isn't so smeary." In the final scene, with the air and water polluted, the animals evacuated, and the last tree cut down, the Once-ler leans from his mysterious Lurkim and drops the last Truffula seed to the boy, saying,

"Unless someone like you  
Cares a whole awful lot,  
Nothing is going to get better.  
It's not."

*The Lorax*, by Dr. Seuss, would be his only book banned from school curricula across the United States. It was his slowest-selling book for a decade, until the booming environ-



*In the final scene of The Lorax, by Dr. Seuss, with the last tree cut down and pollution everywhere, the Once-ler leans from his mysterious Lurkim and drops the last Truffula seed to the boy, saying, "Unless someone like you Cares a whole awful lot, Nothing is going to get better. It's not."*





*A golf course property must be shared with all of the local residents.*

mental movement of the 1980s made it his most popular. In fact, Seuss biographers have stated it was his personal favorite. The true question at hand is, what are the lessons that this story holds for the relationship between golf and the environment?

The golf industry experienced a similar "Lorax" event in 1988 when the United States General Accounting Office published *Are the Hazards of Lawn Care Pesticides Underestimated?* Then in 1989, the Attorney General of New York State published *Toxic Fairways: The Risk of Groundwater Contamination from Golf Courses*. Jay Feldman of the National Coalition Against the Misuse of Pesticides (NCAMP), along with other activists, seized the moment to confront the golf industry.

The initial response from the industry was defensive. In 1992, at the GCSAA Conference and Show there was a packed session of thousands of golf course superintendents who heard from Mr. Feldman and officials from the Environmental Protection Agency (EPA). In 1995, the USGA invited Michael Fumento, author of *Science Under Siege*, to speak. He reported the results of a topical search he had conducted on golf courses and cancer. "Golf courses fight cancer, as professional tournaments raise funds," Fumento proclaimed. The crowd erupted and you could sense that the golf course superintendents wanted this crisis over. Still, information was



lacking regarding the fate of pesticides and nutrients applied to turf.

In response to mounting public concerns, the USGA embarked on a multi-million-dollar research initiative to more thoroughly understand the influence of golf turf management on environmental quality. The environment under investigation was air and water quality. Concurrently, Ron Dodson, President of Audubon International, introduced the Cooperative Sanctuary Program to the golf industry to assist golf course superintendents with environmental management. Ron also encouraged the USGA to establish Wildlife Links, a research funding program that investigates the influence of golf turf management on wildlife.

In 1998, the USGA held a symposium at a meeting of the American Chemical Society (ACS) to discuss a decade of environmental research. As a member of the USGA's Environmental Research and Turfgrass Committee at the time, I enjoyed hearing

from leading researchers in the turf industry and reviewing their work in a symposium book published in 2000. The opening chapter, authored by Jim Snow and Dr. Mike Kenna, is an excellent overview of the research to date. In the concluding section, they state, "University research shows that most pesticides used on golf courses, when selected and applied properly, have a negligible effect on the environment."

Audubon International's cooperative sanctuary programs for new and exist-

ing golf courses have grown over the last decade, but still only about 15% of all courses in the U.S. participate. Furthermore, the number of courses receiving full certification for all six environmental categories is less than 3%. Many others have become certified in one or more categories, however. The bottom line is that most golf courses are either not involved or, if they pay the annual subscription fee of \$150, have not actively pursued full certification. The sad irony in all of this is that in many states the Audubon International programs are actively embraced by government agencies as a means of ensuring environmental quality when a new facility is proposed.

Many golf courses throughout the country continue to face public opposition to the use of pesticides and fertilizers. Several communities in California, for example, have banned the use of most pesticides, and in New York this same trend is actively being pursued. The turfgrass industry has



responded by mounting significant lobbying efforts to combat the legislative agenda of advocacy organizations. At the same time, unfortunately, the industry faces new pest problems, such as bentgrass deadspot and gray leaf spot, that require substantial pesticide input to maintain expected quality.

Millions of dollars have been invested in researching the environmental fate of applied chemicals. These studies attempt to determine the role that specific management practices may play in minimizing off-site movement and often use EPA concentrations to evaluate success. In general, these levels are established from toxicological research that determines concentrations that might cause human health concerns. But what if these levels are harmful to other species vital to aquatic ecosystems?

Environmental researchers from Canada published an assessment of the influence of nitrogen pollution on amphibians in a 1999 issue of *Environmental Health Perspectives*. The paper is a review of available water quality information for the Great Lakes region of the United States and Canada. Of the more than 8,000 water quality samples collected in areas surrounding the Great Lakes, 20% of them were found to have concentrations that cause sublethal effects in amphibians, such as physical deformity.

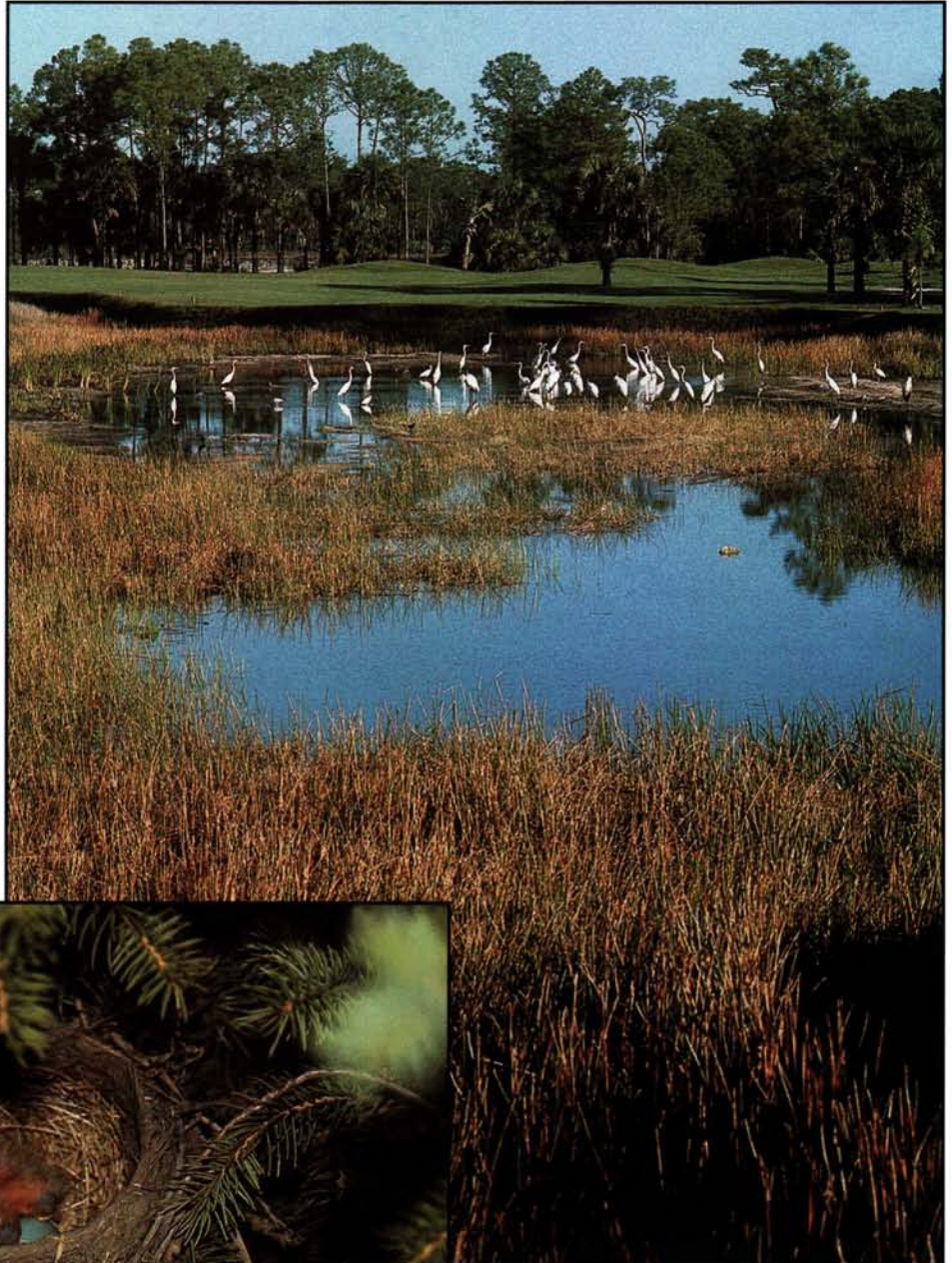
The review did not point a finger at the turfgrass industry, but rather showed the influence of wastewater treatment, livestock management, precipitation, and fertilizer use on nitrate pollution. Clearly, as a major user of fertilizer for turfgrass management, the

golf industry should be aware of the information and adopt best management practices to minimize off-site movement. In addition, golf course superintendents should take every available opportunity to use turf as an effective vegetative buffer or bio-filtration system to protect sensitive aquatic habitats. Now is certainly the time to think about this bigger picture.

Interestingly, the public does not currently view environmental degradation

as a major issue. Gallup polls prior to the 2000 election found that 29% of Americans felt that the environment was either not or only somewhat important. Even though the environment only ranked eighth out of 14 in importance, 15% of the poll respondents said that the environment would be one of the most important issues facing the U.S. in the next 25 years.

Mr. Snow and Dr. Kenna agree on the importance of the environment and



*Golfers play an important role in demanding environmental stewardship. Everyone needs to support those golf course superintendents who achieve environmental excellence.*

*The birth of a new generation is one of the most promising signs of a healthy environment.*



***“As an industry, golf cannot rest on its laurels; it must be vigilant in all its efforts to inform golfers about the ultimate price of their demands.”***



state in the final chapter of the ACS symposium book that “The USGA and the game of golf need to keep asking questions and looking for new ways to maintain golf course grasses. More important, efforts should be increased to educate the golfer about environmental issues.” The importance of these points cannot be overstated, yet I am regularly amazed at how many in the turf industry feel that the environmental crisis is over. I sense complacency among organizations and industry leaders that professional image, labor issues, and expected turf quality are greater challenges now that the results of USGA-funded research studies are known.

There is nothing more important to the well-being of the game of golf and the turf industry than environmental quality. Yes, the data are encouraging in that, as far as we can measure, current management practices appear to have little negative influence on the environment.

At the same time, however, the golf industry needs to scrutinize decisions beyond everyday course maintenance. Should fairways be established with

perennial ryegrass where gray leaf spot is going to be a problem? Are architectural features created on new courses with the environment in mind or a thirst for future television coverage? Why isn't every golf course actively participating in the Audubon Cooperative Sanctuary Program?

If the goal is to reach the public with a positive environmental message, and we know the influence of televised events, why don't we use the medium? Is it unreasonable to request that courses hosting either a major championship or a PGA Tour event demonstrate environmental excellence by enrolling in a program such as Audubon International's Cooperative Sanctuary or Signature Programs, the Michigan Environmental Stewardship Program, etc.? Televised events should highlight environmental stewardship as much as green speed.

Superintendents should be judged by an enviro-meter as much as they are by the Stimpmeter.<sup>®</sup> If golfers do not demand environmental stewardship, will complacency grow until the next crisis? Everyone should support those superintendents who achieve environ-

mental excellence at great risk to their professional stability. I believe we can have environmentally responsible golf and high-quality playing conditions, if we so choose.

Concern for environmental quality will steadily increase as the human population continues to grow worldwide. As an industry, golf cannot rest on its laurels; it must be vigilant in all its efforts to inform golfers about the ultimate price of their demands. In some cases the exact price may not be known, but shouldn't we err on the side of caution? The amphibian study conducted in Canada is only one aspect of what Rachel Carson refers to in her statement in *Silent Spring*, “the fabric of life, on one hand delicate and destructible, on the other miraculously tough and resilient, and capable of striking back in unexpected ways.”

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