

## Publicity needed

one of the major auto makers.

The nutritional campaign within the fastfood business to counter health critics is very visible. Television spots featuring environmental awareness messages on recycling, wildlife, resources and the oceans sponsored by government, special interest groups and industries proliferate.

Golf industry trade journals, magazines and professional publications continually feature articles on environmental issues, new studies and the positive environmental benefits of golf. These are popular topics at golf development conferences, seminars and association meetings. The industry has continued to effectively document that golf courses do not pose an environment threat and that the industry considers environmental stewardship as a prime responsibility.

How is it, then, that some public factions and environmental groups continue to be critical of the industry through the same, repetitive issues and negative perceptions?

## GO OUTSIDE THE INDUSTRY

One answer may be that we are failing to convey the positive information to the public at large. Perhaps we are spending our resources and energies internally spreading the message within the industry and not the greater audience of interested golfers and the concerned public.

Many architects, superintendents, consultants, writers and developers have expressed concern that we are spinning our wheels trying to "convert the converted." Is it now time that we bridge the gap between the wealth of positive environmental informatiion accumulated within the golf industry and the public at large?

Certainly, if we learned anything from the Sherman Hollow experience (in Vermont) and many other similar situations, it is that public misconceptions and perceptions significantly increase the cost of course construction through expensive and lengthy, drawn-out administrative approval processes.

Perhaps this country's millions of golfers would be more concerned and involved in these matters if they clearly understood that this is one of the primary reasons for increased costs of memberships and greens fees at new courses.

Many in the industry have an economic stake in the continued prosperity and growth in the immense, worldwide popularity of golf.

Who among the professional organizations, equipment manufacturers or the many golf media and tour event supporters is willing and able to support a public information campaign on the environment and golf?

There are beginnings. A public television cable channel recently aired a one-hour documentary on golf courses and wildlife, produced in England in cooperation with the BBC and a local golf association.

Certainly, television golf fans got a glimpse of modern course design and environmental management during the national coverage of the Ryder Cup at Pete Dye's Kiawah Island Ocean Course and the PGA Tour event TV trailer. "We want people to be mad about golf — not mad at it!" is a message in point.

The gauntlet is at our feet and, clearly, the future perceptions of golf, environmental issues and regulatory consequences are in the hands of the golf industry.

Larry K. Hawkins is president of GeoScience Inc., an environmental science and engineering firmspecializing in golf development permitting located in Gainesville, Fla. He is a frequent speaker at golf development conferences and contributor to golf magazines and journals.

## N.Y. attorney general rep defends his position on Cape Cod study

To the Editor:

I wish to respond to a statement by GCSAA President Stephen Cadenelli in your article entitled "N.Y. AG attacks industry chemical use" (GCN, September 1991) and to a letter by Stuart Cohen (GCN, October 1991).

Both concern the Cape Cod Golf Course study, which was conducted for the U.S. EPA and the Cape Cod Commission (CCC; formerly the Cape Cod Planning and Economic Development Commission).

I had disputed the significance ascribed to that study by some in the golf industry.

GCN quoted Mr. Cadenelli citing the Cape Cod study as proof that "properly applied golf course chemicals pose no threat to ground waters."

The Cape Cod study provides no such proof. Indeed, the study suffered from several deficiencies (discussed below) but nevertheless discovered no less than 10 pesticides/pesticide metabolites in the ground water sampled.

On Long Island and Cape Cod there is simply no question that golf course pesticides have already been detected in the ground water.

Even so, the Cape Cod results cannot simply be extrapolated to Long Island. At the four Cape Cod courses, annual application rates ranged from 2.7 to 4.4 pounds of active ingredients per acre of golf course, while Long Island courses reported annual application rates up to 22 pounds of active ingredient per acre.

Clearly, differences in application rates and local hydrogeological factors contribute to differences in the impacts.

In his letter Dr. Cohen identifies himself as the Cape Cod study "director ... and first or sole author of two articles published." Certainly he must be aware of the full report on this same study ("Cape Cod Golf Course Monitoring Project," June 1990) by the Cape Cod Commission (CCC) Water Resources Office.

The CCC report notes several deficiencies in the study which I pointed out to GCN. Dr. Cohen apparently now denies these problems.

First, when interviewed by GCN, I explained that some of the wells were dug too deep to detect surface-applied pesticides.

Dr. Cohen responded that all monitoring wells"... were screened at or just below the water table."

But the CCC report states (p. 46) that "... study protocol called for the wells to be designed such that 3 feet of the installed 5-foot screen would penetrate the water table.

Unfortunately, the screens were not placed at consistent depths at each of the golf courses. Many of the wells were drilled so that the whole screen was below the water table; in one case the top of the screen was 11 feet below the water table."

The CCC report continues to explain that "...the deeper wells would be sampling water from a different recharge event from a different area."

Second, I explained to GCN that some wells were placed where they would not efficiently intercept leaching pesticides.

Dr. Cohen claims that all of the green, tee and fairway wells "... were placed at the edge of those areas so that ground water would be sampled that was influenced by turf management of greens, tees or fairways as appropriate."

The CCC report (p. 47) recognized that proximity alone is not enough, but that the direction of ground water flow must be considered.

It states that "...regional water tables were used to place the wells at points which were believed to capture ground water off designated course features (greens, tees, fairways). Unfortunately many of the wells receive flow that avoids or only partially captures flow off the areas of concern."

Third, as I reported to GCN, "The Cape Cod study authors acknowledged the deficiencies...", some of which I have cited above.

Dr. Cohen takes me to task for not consulting him or his "geologist-coauthor, Joe Senita" who, incidentally, is not even acknowledged as a study participant in the CCC report.

There was no need to consult him or the editors of the CCC report, when it spoke so clearly on these problems, perhaps he could explain why.

Finally, the attorney general's report is not an attack on the potential for ground water contamination from the use of pesticides on golf courses. On Cape Cod and Long Island, golfcourse pesticides have already been found in the ground water.

The challenge now is the development of appropriate means to help insure that golf

courses coexist without damaging critical ground water resources.

Rather than deny the obvious, Dr. Cohen, in his current role as consultant to the golf industry, might best focus his efforts on helping his clients choose wisely, and use sparingly, the pesticides they apply.

Sincerely, Michael H. Surgan, Ph.D.

NYState Department of Law Sunbelt used laser tech

## To the Editor:

I found your October issue article on laser technology very interesting. It seems Mr. Connor was fortunate enough to witness our laser leveling unit operating at Palm Ceia Country Club. I like to think he "borrowed" our concept to promote a method of building better tee boxes. As was mentioned, we have used laser leveling for agricultural and preparation for many years.

I'm glad that Mr. Connor is promoting laser leveling to enhance the quality of the tee construction: however, this machinery, like any other, requires experienced and dedicated operators to assure that quality.

Thought you may be interested to know that two of our most satisfied customers include Mr. Connor, who employed our laser leveling at Seminole Golf Club and Pinehurst No. 2, where we recently leveled tees.

Thank you very much for your consideration. I hope you don't mind me setting the record straight "a little bit".

Sincerely, Roger Hruby, president Sunbelt Services Palmetto, Fla.

Editor's note: In our feature story Ed Connor indeed acknowledged that he first saw laser technology used by Sunbelt Services at Palma Ceia Country Club. He said he saw a tee at eye height and "it looked like it was sliced with a diamond cutter. It was perfect." The technology has also been used by Alan MacCurrach at MacCurrach GolfConstruction, the PGA Tour's Dave Postwaite, and, perhaps, others.

Please mail letters to: Letters, *GolfCourse News*, P.O. Box 997, Yarmouth, ME 04096.

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