

# The Greens Against The Greens

by MICHAEL FUMENTO

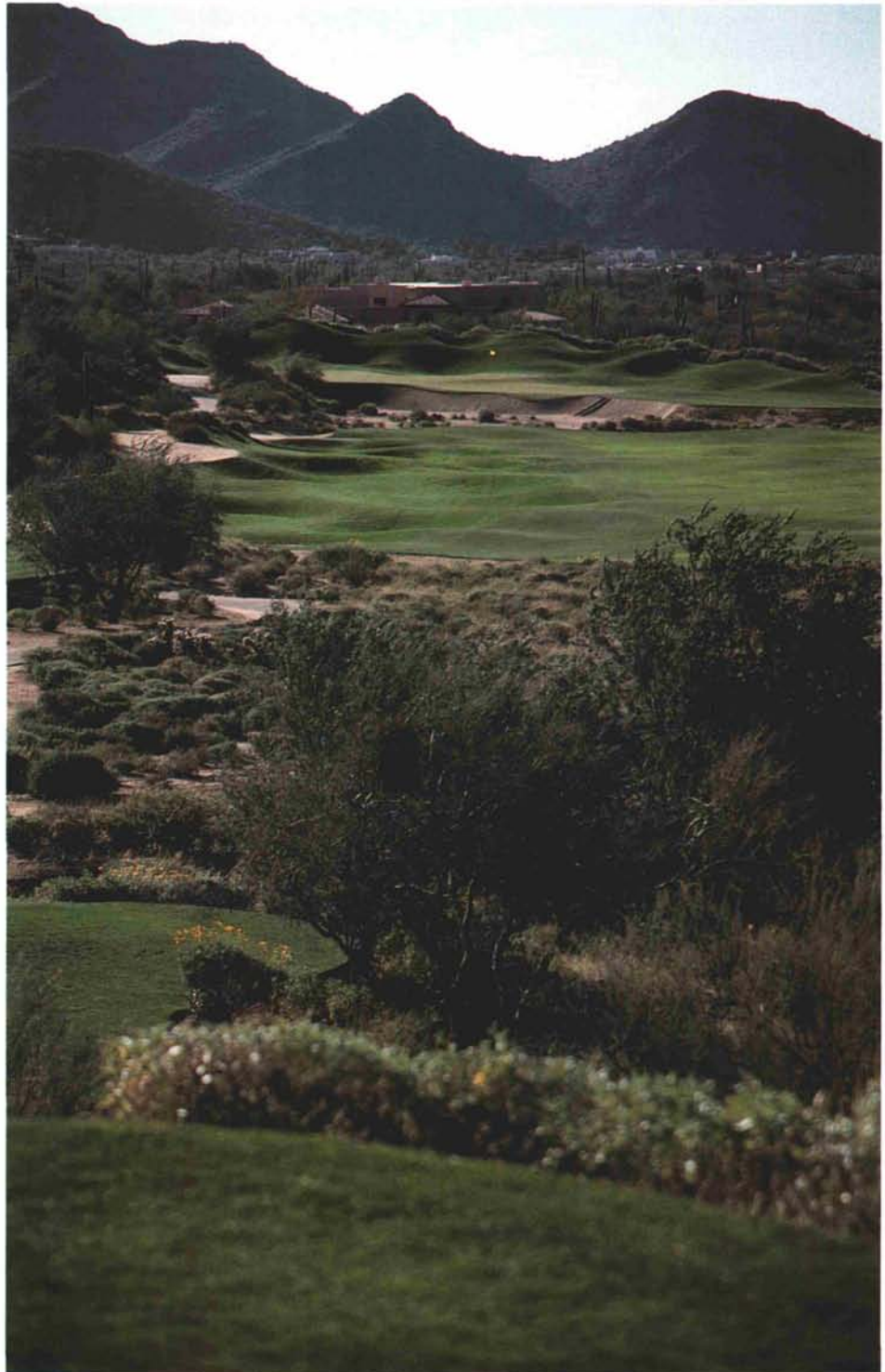
Author of *Science Under Siege:  
Balancing Technology and the Environment*

*The opinions expressed in this article are those of the author and do not necessarily represent those of the United States Golf Association.*

**I**N CASE you haven't heard, golf causes cancer. Or, specifically, the pesticides sprayed on golf courses cause cancer. Need proof? One out of four American golfers will contract cancer, and one in five will die of it. That's scary stuff, unless you know that the same one in four American non-golfers will contract cancer, and one in five will die of it. This is what's called the background rate of cancer. It is a realization that everybody dies of something and that in a large enough group one can expect all the various types of death. It is terribly basic. And yet it is terribly misunderstood. And so we hear that pesticides sprayed on golf courses cause cancer because several pro golfers, including Paul Azinger and the late Heather Farr, contracted cancer.

There is a County Councilwoman in Allentown, Pennsylvania, who wants to ban pesticide spraying on golf greens because, according to the local newspaper, "She said an acquaintance of hers suffered a long and painful death from pesticides sprayed on a golf course, and the family of a Palmer Township woman believes her cancer was caused by lawn spray chemicals." The reporter comments that this "could mean some toxic insecticides and herbicides would be replaced by everything from animal traps to fly swatters."

How does this woman know that pesticides killed these people? We're not told. But it's a common way of thinking to say the person played golf, the person died, therefore golf caused the death. It's that simple. I see this pattern all the time. There's a man from St. Petersburg, Florida, who launched a national panic when he told TV talkshow host Larry King that a cellular phone caused his wife's brain cancer. She used the phone, three months later she was symptomatic for cancer, and therefore what else could it have been? That no cancer develops in so short a time frame as three months did not bother this man, nor that the normal background rate for such cancers indicates that some 700 cellular phone users



*Fertilizers and pesticides are applied to the turf to maintain a dense playing surface for golf. These products help limit damage caused by weeds, insects, and diseases, but their function in the management program can be misunderstood by the public. Desert Highlands, Arizona.*

that year should have died of brain tumors regardless of whether they even turned them on.

Then there was the mother of the Gulf War veteran who claimed that her son died of cancer from nerve gas exposure after a Scud missile exploded nearby. There was no record of any Scud exploding near his unit, there was no evidence of nerve gas deployed near his unit, nobody in his unit suffered any of the typical symptoms of nerve gas exposure, and nerve gas has never been connected to cancer. To top it off, while the type of cancer the man contracted takes an average 20 years to develop, this poor fellow's first symptom was the *day after* his mother said the Scud went off!

It's terribly sad that the St. Petersburg man lost his 33-year-old wife who had just given birth. It's sad that the woman lost her beloved veteran son. But this isn't science they're employing; it's superstition that flies in the face of everything we know about cancer. These people shouldn't be invited to appear on Larry King or testify before Congress, as the veteran's mother did. But this pattern is repeated time and again. Sometimes the culprit is power lines, sometimes computer terminals, sometimes walkie-talkies, sometimes pesticides, sometimes toxic waste dumps, sometimes breast implants, but the pattern is always the same. And, never fear, there is always a crusading activist group that will support such beliefs.

That said, this doesn't mean that pesticides don't cause cancer. So what do the scientists say? They do say that, depending on whom you ask, perhaps 10 pesticides that are sometimes sprayed on greens are carcinogenic in lab animals. When the media or environmental extremists receive this information, they routinely omit the part about the animals. And yet this is vital because human exposures are not equatable with these animal exposures. First, different animals react differently to chemicals. Fully one-third of the time, something that causes cancer in a rat doesn't do so in a mouse, and vice-versa. If there's such a huge difference between two such similar species, what does this say about extrapolating from mice to men?

Perhaps even more important, these animals are given on average 280,000 times the exposure that humans would receive. Yet we know that when it comes to acute poisoning, clearly the dose makes the poison. The iron in just a handful of adult vitamin tablets can kill a baby. A little digitalis is an effective heart medicine; a lot is an effective poison.

There is some evidence that the dose also makes the poison with carcinogens. It appears that when specific organs in the body

are hit by so much of a given chemical, it kills off the cells at a high rate, and that in the effort to replace those cells, mistakes are made in the DNA codes. The result: cancer.

So what we really should be looking for is tests of pesticides on humans. And yes, they do exist. There is a growing body of data looking at American farmers who spray pesticides for a living. Now these guys get it on their skin, they accidentally inhale it, it sometimes soaks their clothes. Despite their precautions, many of them receive relatively high exposures. What these studies of farmers have shown is that their incidence of cancer is below average — statistically, significantly below average. Now, for some types of cancer they are above average, and some extremists make much ado about this fact. But consider: if overall the herbicide applicators have less cancer than average, but for some cancers they are above average, doesn't that mean that for some cancers they must be way, way below average? Does that mean that exposure to pesticides is actually protecting them from those cancers? Maybe, but probably not. There's probably some other aspect of their lifestyles that is protecting them. So if that's the case, couldn't it be some other aspects of their lifestyle accounting for the increases?

There has also been a study of golf course superintendents that one green extremist uses to show that 750 such persons had died of cancer. Considering that the study only looked at 750 superintendents, it would have been a disturbingly high number of cancer deaths, to say the least. But actually the number of cancer deaths was 179. This was higher than the 136 that would have been expected among the same number of persons in the general population, but not so high an elevation as to be beyond the realm of chance. In other words, just because you roll a six twice in a row with a die doesn't mean the die is weighted, even though the odds are against such an occurrence.

Another alarming fact you have heard is that among a group of approximately 200 members of the Ladies Professional Golf Association, there have been at least four cases of breast cancer. Scary stuff, unless you know that at current rates, about one in ten American women will contract breast cancer, meaning that ultimately in that group we would expect 20 such tumors.

None of this is to say that golf is without hazard. Golfers seem to make marvelous lightning rods. And then there was the man in Florida who recently was retrieving balls from a pond on a golf course and was bitten on the foot by an alligator. Maybe he was wearing an Izod shirt and the gator took offense.

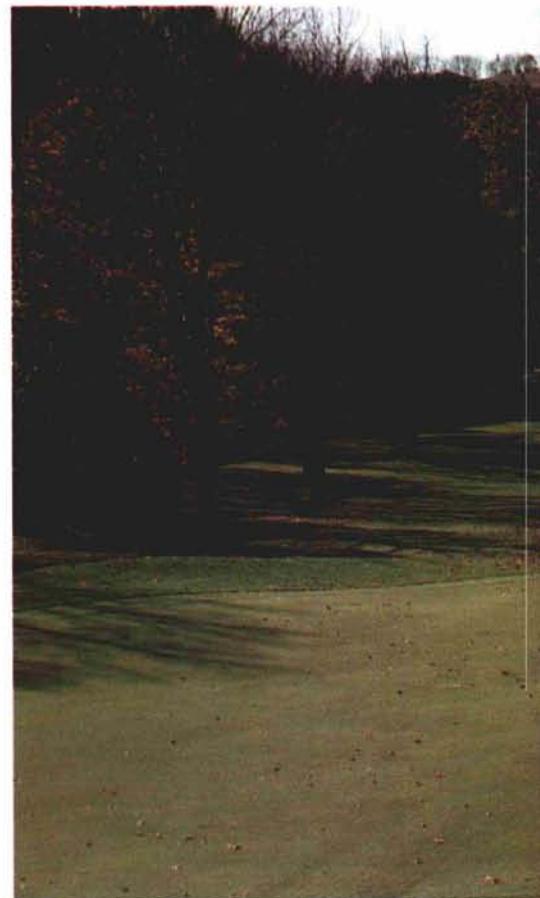
Environmental extremists don't want a careful evaluation of what good, and possible

harm, synthetic chemicals can do; they just want them banned. They fear technology. They blindly trust Mother Nature and as blindly distrust what is made by the hand of man.

Thus, while about half of all synthetic and natural chemicals have proven carcinogenic when fed in massive doses to laboratory animals, environmentalists want to ban all synthetic ones and leave the natural ones alone. Thus, they are now pushing for a blanket ban on all chemicals made of or with chlorine, including most pesticides, but natural chlorines like salt are ignored.

But consider this: If the mortality rates from 1940 applied to 1988, four million Americans would have died in 1988. Instead, 2.2 million died. The difference can be summed up in one word: technology.

Technology has made people live longer and better for two reasons. The first is the direct route, the benefits of the device or chemical itself. The second is simply by raising standards of living. By allowing more work to be done by fewer people, technology has made the average American richer in most respects than the richest king of not long ago. A hundred years ago, the world's richest monarch did not have year-round refrigeration, did not have fresh fruits and vegetables out of season, did not have a means to visit faraway kingdoms in a matter of hours. And when his beloved son and heir caught the measles, he had just the



same high chance of death as anyone in the kingdom.

Who are the people who are trying to blame technology for every evil on the planet, both physical and moral? They are saboteurs, in a very literal sense. *Saboteur* comes from the French word for wooden shoe, a *sabot*. The original saboteurs threw their wooden shoes into machinery to break it, thus hoping to forestall the industrial revolution. The intellectual descendants of the saboteurs and their counterparts from English history, the Luddites, are the technophobes of today, the environmental extremists.

Anytime these saboteurs want, they can go to a Third World country, hitch themselves up to an old water buffalo, and live out their fantasy. But they don't want to go to the Third World; they want to bring the Third World to us.

Along with not understanding the wonders that technology has wrought, these extremists also don't comprehend the allocation of scarce resources, which says that every dollar spent on anything is a dollar less to be spent on anything else. They want to spend money on everything, which is not possible. You cannot reduce risks to zero. What you can do, in your effort to reduce some risks to zero, is spend so much money chasing phantom risks that there isn't any left over for real ones.

*Turfgrasses offer many positive environmental influences such as erosion prevention and effective filtering of water contaminants. Combined with out-of-play areas, golf courses also provide excellent wildlife habitat. Roxiticus Golf Club, Mendham, New Jersey.*



In the United States, we are now spending over \$150 billion a year in direct compliance with environmental regulations, soon to be 3 percent of our entire gross domestic product. This \$150 billion is larger than the national budget of all but a few countries in the world. Yet, there is very little evidence that after the first \$50 billion or so we are getting much for our money. Meanwhile, the American government spends only about \$10 billion a year on medical research.

Yet another alien concept to some environmental activists is the overemphasis on small or virtually non-existent risks that results in the down-playing of real risks. One of the greatest of these is obesity. For all the talk about parts per quintillion of dioxin, per quadrillion of pesticides, or wafting cigarette smoke, other than perhaps direct cigarette smoking, America's biggest controllable cause of death isn't what someone else is inflicting upon us, but what we inflict upon ourselves. As a nation, we are eating ourselves to death, with some 300,000 lives lost prematurely due to overweight. A recent government report also found that 21 percent of our nation's teens are obese, a huge increase over the 1970s. A separate report found these kids may have already irreparably damaged their hearts and that 30 million U.S. children now stand to die of heart disease.

American teenagers are eating their way into the grave. Safe in the knowledge that

their government and self-appointed protectors are reducing levels of dioxin from parts per quintillion to parts per sextillion, they stuff their faces with hotdogs, hamburgers, and potato chips and don't get off the couch except to insert a new video game cartridge into the machine. Yet there is no national campaign against teenage obesity.

So, we obsess over the non-problems and theoretical problems, and we ignore the real ones. We run so fast and so furious from bogeymen that, like scared buffalo, we end up running en masse off the edge of a cliff. We are told so often that this causes cancer and that causes cancer that many people put up the natural defensive reaction that nothing causes cancer. And yet, as I said, cancer is poised to swipe away a fifth of us — not because of something sprayed onto greens, or present in the water supply in parts per quadrillion, or on your fruits and vegetables in parts per quintillion. Rather, aside from genetics, it is caused almost exclusively by that which we intentionally expose ourselves to — cigarette smoke, alcohol, not eating properly. How many people out there, I wonder, are neglecting the real causes of cancer, even while they shudder at the thought of walking onto a golf course?

The next time you hear somebody talk about that cancer-causing agent known as the game of golf, don't go on the defensive, go on the offensive. Tell them they have no right to force their personal, unscientific, anti-scientific beliefs on you. Tell them that you think they are encouraging a fatal distraction by putting emphasis on the wrong areas.

And here's a final thing to point out to them, something I hadn't even thought about until shortly before I wrote this article. Using my Nexis computer database of magazines, newspapers, and newscasts from around the country, I plugged in the words "cancer" and "golf" and told the computer I wanted all references in which those search terms appeared just 25 words apart or less. To my shock, my terminal flashed a message saying that there were more than a thousand such items. I thought, "Could there be that much bad reporting linking golf courses to causing cancer?"

But as I read through a few such stories, I realized what was happening. The vast majority of these references were about golf tournaments set up to raise money to help cancer victims. Along with tennis, there is no other sport more associated with benevolence than golf. That is your legacy. So, the final thing you should do when environmental extremists challenge your sport is to grab your favorite club — 9-iron, putter, or whatever — hold it before them like a king's staff, and declare proudly: "You are wrong! Golf doesn't cause cancer, it cures it!"