

# Killer Courses

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Golf course Pesticides can harm more than their intended targets Special Report GOLF Magazine Dec 1986 by Bob Condor

**M**ore than four years have passed since US Navy Lieutenant George Prior died from a mysterious ailment that doctors traced to the Army Navy Country Club near Arlington Virginia. Prior played golf Three straight days while on leave in August 1982 After the first two he returned home with moderate headaches and nausea but following the third day Prior grew weak and a blistering rash spread across his stomach. checked He checked into a hospital. Within two weeks, skin festered and scabbed, his internal organs failed and he died of a heart attack. Prior was 30 years old.

An expert Navy forensic pathologist Dr. Jonathan Lord concluded that the cause of death was a severe allergic reaction to Daconil 2787, a common fungicide sprayed weekly on the Army Navy course to control brown spots on the greens. Among the Navy doctor's evidence: A chemical similar to Daconil allegedly killed a Florida family after it was used to fumigate their house. Prior had a history of health complaints after playing golf; the club's grounds and Prior's equipment and clothing tested positive for Daconil.

Prior's wife filed a \$20 million lawsuit against the Army Navy Country Club and Daconil's manufacturer Diamond Shamrock Corp. The case remains in litigation.

Although most golfers play on pesticide-sprayed courses without ill effects, Prior is not the first golfer to experience flu-like symptoms after a round. "I used to have all kinds of trouble playing in Florida," says Billy Casper. "One year in the National Airlines Tournament near Miami I had to withdraw after 36 holes even though I was two shots off the lead. The course had been heavily sprayed and there was weed killer in a lake. When I got to the course for the third round I couldn't hit a wedge shot 30 yards - I didn't have the strength. My eyes were



bloodshot my complexion was very ruddy and my right hand was swollen from taking balls from the caddie. My doctor diagnosed acute pesticide poisoning."

Casper, who now credits vitamin and mineral supplements with helping him stay stronger on sprayed courses, says there were times when I couldn't think my way out of a paper bag" during a tournament round. "I found I couldn't reason on the heavily treated courses."

Dr. Samuel Epstein, an expert on environmental toxicology at the University of Illinois Medical center confirms that "Golfers are greatly exposed to pesticides. Direct contact encourages absorption of toxic materials through the skin and sometimes ingestion. Recently sprayed pesticides do volatilize on hot days leading to the additional risk of inhalation."

Golfers affected by pesticides will experience several early symptoms including memory loss fatigue headaches nausea and dizziness. But although Epstein recognizes the potential seriousness of these symptoms, he is more concerned about the long term ill-effects of pesticides.

"Golfers spend a good deal of time on golf courses, up to four hours or so a day," he explains. "That's a high level of exposure to a number of chemical agents that produce delayed effects, such as birth defects, neurological disorders and cancer. A golf course is essentially a hazardous site, and it's time golfers realize they are captive to an industry [lawn care] that is indifferent and ignorant about the public health.

In the early 1970s, the Environmental Protection Agency (EPA) was mandated by Congress to register all pesticides used on turf. That means testing and approving any new product on the market. But because many golf course pesticides predate 1970, they were granted exemptions from extensive testing for EPA approval. Now the Federal agency periodically "re-registers" existing pesticides but testing doesn't appear any more rigid. The EPA will respond to any valid data showing chronic effects such as carcinogens, birth defects or bird kill," says Henry M. Jacoby EPA's product manager for agricultural fungicides Jacoby reports that Diazinon," made by Ciba-Geigy, is a pesticide under special review. It is likely to be disapproved for golf course use by year-end, due to numerous incidents of birds (mostly geese and other water fowl) dying.

Golf course superintendents also have their hands full with the pesticide issue. "Some courses forbid spraying when members are playing." Says Jim Snow, a turf management director for the United States Golf Association. "They'll close one day each week to apply the pesticides."

However, Snow maintains that attention to spraying seems to have turned into a witch hunt, "making golfers paranoid about something that isn't all that critical. Most pesticides and fertilizers used on golf courses are quite tame, and the people applying them are professionals."

The USGA is studying alternative methods of pest control, as are some local golf superintendent groups. "Pesticides and fertilizers are our biggest expense items," says Ed Nash, golf superintendent at the Bass River Golf Course in South Yarmouth, Massachusetts, which is participating in a local pesticide study of Cape Cod courses. "We have no economic interest in using chemicals if we don't have to. We're looking at ways to integrate pest

management by using less water with safer chemicals. After all, we're exposed more than anybody else because we apply it."

### **Experts offer suggestions:**

- Pay attention to early symptoms (memory loss, fatigue, headaches, nausea, dizziness). They are the body's built-in warning signals.
- Insist that your course's management provide detailed information about what pesticides are used and that signs be posted after spraying.
- Wear long pants and socks. Never play in bare feet.
- Keep the ball away from your mouth. Never lick it.
- If you have sensitive skin, try not to wipe your face or neck with your hands. Handling the ball with your glove hand also helps.
- Wash your hands immediately after playing.