

# BEATING THE CHEMICAL BANS

Many forward looking golf course superintendents have solved the restrictions on turf chemicals by finding effective alternatives. The superintendent is also in the position to decide the destiny of these controversial chemicals

By Jerry A. Olson

Associate Editor

**T**he heated conservation controversy currently crossing the country regarding the use of highly toxic, long residual chemicals has placed the golf course superintendent in a delicate position.

The problem is not whether the golf course superintendent will have chemical restrictions—it's past that stage. Rather, the problem is how many restrictions he is going to have to cope with.

The superintendent is caught in a dilemma.

He can be defensive, accusing ecologists of being uninformed emotionalists, who would rather see blights, pests, weeds and fungi invade the environment. Or he can take a leadership position by evaluating alternative chemicals, which in some instances are more effective, less harmful to the environment and still produce the high quality of turf demanded by the members.

Because of the superintendent's expertise and knowledge of chemical application and turf, combined with his desire to use the safest chemicals available to minimize any harmful effects on the environment, the superintendent is in a position to "work within the system" to find alternatives and implement positive, responsible legislation for controversial chemicals.

New York State has already banned 10 products, including DDT and mercury. Massachusetts, Maryland, Ohio, California and Florida have passed stringent laws restricting use of these chemicals. The indiscriminate use of pesticides on lawns and trees by the homeowner has raised serious doubts on the advantages versus the detriments of these chemicals. Unfortunately, the farmer, forester and golf course superintendent must bear the brunt of their haphazard practices. The deaths of too many children and pets, wild birds, swordfish and tuna, coupled with the national pollution problem, have sounded the death knell for DDT, mercury and some arsenicals.

Some club members are now espousing a clean environment, along with beautiful turf.

The two goals are not incompatible. Superintendents throughout the nation have found safer alternatives to DDT, mercury and arsenicals. Of course, the two major problems now facing the superintendent are: the substitutes cost more; and questions as to whether the alternative chemicals will do an effective job.

According to Fred Harris, past president of the Southern California Golf Course Superintendents Assn., and superintendent at Los Coyotes CC in Buena Park, Calif., mercury is still available in his area, although manufacturers have come out with substitutes for mercury and other herbicides. "Prior to the legislative restrictions," Harris says, "if a manufacturer introduced a new chemical on the market, the superintendent was hesitant or unwilling to take a chance on it. After all, DDT and mercury were doing an effective job and were cheap, so why switch from proven chemicals?" Harris feels the new restrictions can be looked at positively, because now the superintendent is

discovering new chemicals which are in many cases better than those under fire. The only substitutes where superintendents will notice a great price differential are in alternatives for DDT. The very advantage of DDT, its long residual power, is the reason it is under fire. Some DDT substitutes, such as Sevin and mechoxychlor, cost more because of heavy research costs and the increased number of applications.

Ted Horton, secretary of the Metropolitan GCSA and superintendent at Winged Foot, GC, Mamaroneck, N.Y., takes a positive attitude towards New York's strict bans on DDT and mercury, used mainly as fungicides with side effects on *Poa annua* control. "Technology will be able to supply alternative chemicals for the superintendent," Horton says, "and increased demand and competition will help to keep the price down."

According to Andy Androsko, cooperative extension agent for New York's Westchester County, New York superintendents must apply for a permit to handle chemicals which are not banned by the state. DDT, mercury compounds, Bandane, BHC, endrin and toxaphene are banned by New York. "The only persons who can receive this permit to use restricted chemicals are those who handle pesticides as a normal part of their occupation," Androsko says. "Therefore, the homeowner does not qualify for these restricted chemicals, but the golf course superintendent does." New York has two classifications of restricted chemicals available to the superintendent: highly toxic, with over 55 chemicals, including Guthion, Paraquat and parathion; and long residual chemicals.

"There is possibly a tendency for some superintendents to feel we have overreacted," says one New York state official. "This misunderstanding is due to some of the loopholes in the restrictions and legislations. Hindsight has shown us some of the weaknesses of the bans and restrictions and we are now moving to correct them," he says.

One state official, who works closely with New York superintendents, Ray Dylewski, horticultural inspector for the New York State Department of Environmental Con-

servation, feels that superintendents have been using many chemicals, such as DDT and mercury, on a preventative basis and even when they are not faced with any diseases. "The state bans and restrictions on chemicals still make it possible for the man who makes his living using chemicals to have the necessary tools at his disposal," Dylewski says.

Charles Frommer, director of New York State's Bureau of Pesticide Control, echoes many of Dylewski's observations. "Although many people may have felt that we rushed chemical legislation through, the action centered around those chemicals that were considered harmful by both the state and Federal governments. The state would not have taken such drastic action," Frommer says, "if it felt it would ruin the golf course or agricultural industry. But the availability of non-toxic substitutes made it imperative that we ban certain deadly chemicals, even though the golf course superintendent was not the culprit. We are still not sure of the effects of certain chemicals, even if they

are controlled, and the part they play in the food chain."

As GOLFDOM was going to press, the steering committee reviewing New York's pesticide regulations was meeting to decide further steps which should be taken regarding certain chemicals. Frommer indicated that arsenicals will undoubtedly be a prime topic of conversation at the meeting, but restrictions are not expected until 1972. The chances of DDT and mercury being again available on a prescription basis to superintendents is about as likely as 18 consecutive holes-in-one!

Although New York does not have a licensing or certification test, Frommer feels that day is not too far away. However, he says, the custom applicator, the man who applies chemicals to other people's property, will be the first affected by any licensing procedures. He agrees that certification from the GCSAA should provide the superintendents with the knowledge to handle any state tests forthcoming.

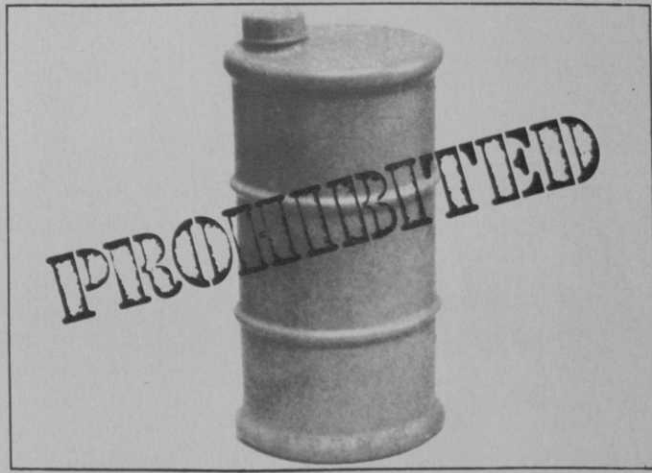
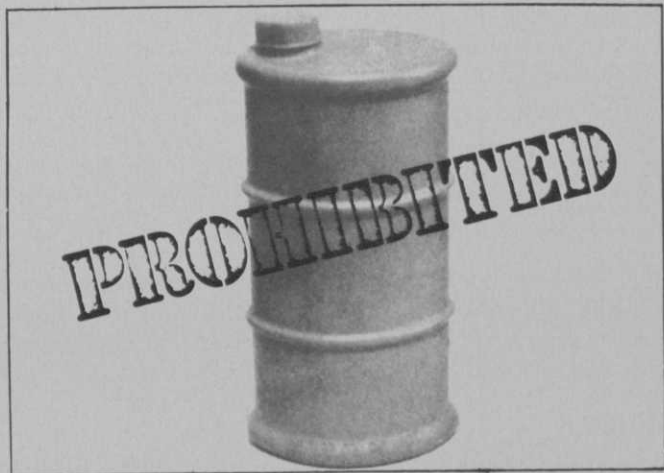
John Spodnik, past president of the

GCSAA and superintendent at Westfield CC, Leroy, Ohio, works with superintendents, the Ohio State Environmental Protection Agency and legislators, in an attempt to reduce the misinformation surrounding certain chemicals.

"We are working for favored regulations and restrictions which would require homeowners to pass the Ohio Pesticide Applicators Law before using certain chemicals," Spodnik says. "Because of the superintendent's knowledge of chemicals and turf, he is exempt from the test," he says. Like many superintendents, Spodnik feels the term pesticide is a misnomer too closely associated with Rachel Carson's controversial book, "Silent Spring." He favors using the term "plant protectant." "Without chemicals," Spodnik says, "gypsy moths and beetles would run rampant through forests and golf courses causing irreparable damage."

Spodnik, along with Harris, favors the systemic chemicals as substitutes for fungicides. "Systemics cause the least amount of pollution,"

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Spodnik says, "because they are absorbed in the soil by the plants. As a fungicide they prevent diseases on greens, fairways and tees.

"Although they cost more money," Harris says, "they only have to be applied twice a year. The extra cost of the chemicals is completely offset because less time for labor is involved."

According to Ellis Geiger, superintendent at Doral Hotel and CC in Miami Beach, Fla., many superintendents in his area have not used DDT or mercury for several years. "We have found many substitutes over a broad spectrum of chemicals which are effective, bio-degradable and have a very low toxicity," Geiger says.

Harvey Junor, superintendent at Portland GC, Portland, Ore., switched from mercury and DDT before the chemical controversy became vocal. Using substitutes he is still producing top quality turf and working within the same chemical budget!

The superintendent should not resign himself to the notion his voice will not be heard above the cries of the environmentalists. According to Robert Kelly, assistant for administration at the Environmental Protection Agency's Office of Pesticide Programs, "The EPA will be taking public testimony on DDT starting this summer. An examiner will conduct hearings in many parts of the nation," Kelly says. "After the hearings, which will give golf course superintendents as well as the public an opportunity to respond, the EPA will have an administrative review combining the testimony with laboratory experiments. The final results should be known within nine or 10 months," Kelly added. According to Kelly, the EPA's administrative review on mercury compounds should be completed this month.

One possible means of retaining some of the highly toxic and residual chemicals by licensing, is being investigated by members of the GCSAA.

Canada has a licensing law which Dr. Paul Alexander, educational director of the GCSAA, would like to see adopted in this country. Ac-

ording to Alexander, since 1969 the Canadian government has restricted applications of chemical products on a large scale to persons who have passed an exam which qualifies them as licensed applicators. If a Canadian superintendent fails to pass the exam, which is a tough one, he has to hire a man who is licensed, to do the spraying. Late last year, Wisconsin passed similar legislation. Under that law, the superintendent has to notify anti-pollution board officials who is qualified to apply chemicals at his club. At most clubs it is usually the superintendent and one or two of his assistants. Wisconsin also requires that the type of chemicals used be specified. No tests are required, but county agents make periodic checks to ensure that only licensed or approved operators are handling chemical applications.

At the moment, Alexander is preparing reference material for superintendents to study prior to taking an applicator's exam. The test, when it is ready, will be monitored by the GCSAA. If he passes, the superintendent will receive a license certified by his association. If he fails, it means more study. The GCSAA plan is voluntary. The advantage of having a certificate is that most states probably will recognize it if they have to enact licensing regulations in the future. If the states do not recognize GCSAA certification, there is little reason to doubt a superintendent would have any trouble with the state exam after passing the GCSAA one.

Even if DDT, mercury compounds and arsenicals are not banned by states or the Federal government, the superintendent must weigh the price he pays if he continues to use these controversial chemicals. According to one superintendent, "Defending mercury and DDT are not worth the battle. The superintendent is working in the middle of a congested oasis—trees and grass surrounded by concrete and asphalt—and he must continually be conscious of his obligations and responsibilities for utmost safety and a favorable image not only to the club members, but to the surrounding community as well." □