

DDT PANIC

By JOE DOAN

Due to the intensification of the campaign against DDT in the Midwest since the first of the year, course superintendents in the Chicago area appear to have cut back on the use of the insecticide. But most of them don't think DDT is dead and predict that, after some of the other insecticides are tested and not found wholly adequate, DDT will be back.

An informal survey of Chicago area superintendents reveals that outside of spraying for Dutch Elm disease, few have ever been heavy users of DDT. Hardly any of

them have used it as a ground spray, and of those who have, practically all discontinued the practice some time ago. There has been fairly heavy use of the controversial insecticide for mosquito control and for spraying bushes and shrubs in the vicinity of the clubhouse, but this, too, has been largely discontinued in recent years.

"Don't forget," says one superintendent, "that DDT has been a pretty hot subject for several years. Now, the politicians have taken notice of it and so we're hearing a lot more about it."

The Clarke Mosquito Abatement Company of LaGrange, Ill., an aerial spraying firm which has been doing helicopter spraying of elms for country clubs in the last three years, indicates there has been a big swing away from DDT this spring. For all of its accounts, DDT application is down more than 40 per cent; for golf courses it is down 60 per cent. Clarke services about 30 clubs, twice as many as last year.

The George A. Davis Company of Chicago, perhaps the biggest supplier of turf products in the area, says that DDT sales are

ILLUSTRATED BY JON NIELSEN



DDT is now a dirty word. But some supers think that after it has been banned for a few years and if an equally effective substitute has not been found, it will be reinstated—when the bugs and beetles once again infest the land

down “considerably” for 1969. The Agricultural Chemical Division of American Oil Company, which concentrates on farm volume, reports that DDT sales this spring were only about 10 per cent of what they were last year. Farmers traditionally have used DDT extensively as a ground spray.

The most common substitute for DDT in elm tree spraying is methoxychlor. Its proponents claim that it is only about 5 per cent as toxic as DDT. This pesticide is said to lose its toxicity in

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no more than six to 12 months in contrast to possibly 20 years for DDT.* Its big drawback is that it is three times as expensive as DDT. However, as one superintendent has pointed out, his club discounted the price difference between the two chemicals because it is quite small in comparison with the overall cost of spraying by helicopter.

A spokesman for the Clarke firm contends that in spite of its virtues, methoxychlor loses its efficacy too quickly. It is best to apply it late in April, after the elm trees have started to bud, so that it still retains sufficient potency to suppress the elm beetle blight when it reaches its peak in late August. The Clarke people say that for any insecticide to be fully effective in controlling elm disease, it should be applied before the trees begin to bud. When methoxychlor is used, treatment has to be held back from four to six weeks longer than it should.

Oak Park, Ill., located next door to Chicago, has been using methoxychlor for five years, making a single annual application. It is claimed that elm tree losses in this village is proportionally lower than in any community in Illinois. But the key to success here, Oak Park officials concede, is the village's program of pruning and cutting out dead limbs and trees that are breeding places for the beetles that carry the disease from tree to tree. Thus, the sanitation methods may far overshadow chemical treatment. A quiet campaign to outlaw DDT, which was carried on by a well-known local entomologist, prompted Oak Park to switch to methoxychlor.

Another benefit that results from using this insecticide, it is pointed out, is that it is harmless to birds, whereas DDT has been responsible for widespread destruction of

*"Hard" pesticides, such as DDT, persist for many years and accumulate in the environment.

the bird population, particularly among fish-eating birds.

Rueben Thomas, who has been at Exmoor CC in Highland Park, Ill., for more than 40 years, the last several as superintendent, says the large-scale decimation of birds, the result of their ingesting various control chemicals, is not a latter day phenomena. He first observed it in the late 1920s, when arsenate of lead was first used as an insecticide. However, he believes that larger quantities of birds have been killed in the last decade by pesticides and other chemicals than ever before. Thomas hasn't used DDT for six or seven years. He stopped using it when he noticed that it blew into the lakes on his course and killed large numbers of fish.

Thomas has tried methoxychlor, but is undecided about its effectiveness. Last fall he permitted an entomologist from Iowa State University to treat 80 of his elm trees with a chemical, as yet unidentified, that is injected into the trunks via several holes. The chemical is circulated through the tree by the sap. How effective it is cannot be determined until August when it can be seen whether or not the treated elms at Exmoor resisted the onslaught of the beetles. Like most superintendents, Thomas has had his share of elm tree casualties in the last few years, so his course is a good testing ground. It cost him \$12 to have each tree treated, but if the chemical turns out to be the answer, it is well worth the cost. It costs more than this to replace a dead elm tree.

Bob Williams, whose Bob O' Link course is also located in Highland Park, has never seen very many dead birds on his property. He sprayed his elms with DDT for seven or eight years, but a newly enacted city ordinance forced him to desist this year. Methoxychlor was substituted.

Williams feels that DDT has done a lot of good and wonders if

it isn't taking the rap for all the damage that has been caused by the wide assortment of chemicals that are on the market. Arsenicals, for example, may be more dangerous than DDT, as some chemists point out. Others say that organic phosphate pesticides have accounted for much of the toxicity found in foodstuffs.

Much of the current agitation for banning DDT in the Midwest is due to a too high mortality rate of coho salmon in Lake Michigan. The agitation has become so great that the governors of Illinois, Indiana, Michigan, Wisconsin and Minnesota met this spring in an emergency session and agreed that a monitoring system should be set up to measure potentially dangerous pesticide levels in Lake Michigan as well as Lake Superior. Shortly afterward, the State of Michigan* banned the sale of DDT, because its conservation and agricultural officials decided that the chemical is a threat to the coho.

However, few scientists have flatly stated that excessive amounts of DDT, or any insecticide content, is the reason for the destruction of the coho in Lake Michigan; it is a probable cause, they say. They maintain that they are not avoiding the issue; they just don't have enough information to make a valid judgement. Just recently it was brought out that 15 years ago Lake Michigan smelt contained DDT in excess of what was considered a safe level, but no one was particularly interested at the time and if an alarm was sounded, it wasn't heeded.

Bob Williams brings up an interesting point, probably one that has been overlooked. DDT users in the Chicago area, including golf course superintendents, are accused of polluting Lake Michigan because they have used an excess

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*To date, Michigan and Arizona have banned DDT sales; Wisconsin Senator Baylord Nelson has submitted a bill to Congress, to outlaw DDT nationwide.

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of DDT and other insecticides. However, except in the immediate area of the lake, the watershed around Chicago is to the west. If any bodies of water are suffering from runoff of Chicago's DDT, it is rivers such as the Des Plaines, Fox and Illinois and possibly the Mississippi. "If Lake Michigan is polluted," Williams observes, "the state of Michigan must be the culprit."

One of the few superintendents in the Chicago district who uses DDT as a ground pesticide is Harold Frederickson of Edgewood Valley in LaGrange. He originally used it exclusively in trying to eliminate fruit flies. However, the flies seemingly developed immunity to it and for the last two or three years, Frederickson has been alternating four malathion and four DDT treatments annually. And, with good results. The

Edgewood Valley superintendent also had his elms sprayed with DDT this spring, as he has done in past years. He suspects that the reports of widespread slaughter of the bird population due to chemicals is exaggerated by naturalists, conservationists and others in their effort to win strong public support for the anti-insecticide legislation they espouse. Frederickson has seen very few dead birds on the course on which he has worked in the last seven or eight years and neither have the people with whom he has been associated. And, he points out, people who work around a golf course are more likely to see them than almost anyone else.

Superintendents say they have received very few complaints about their use of DDT from people living in the vicinity of the course. However, some of their neighbors become quite shaken up when they see and hear a helicopter

overhead. But it's the noise and not the spraying that scares them. Nobody has accused any of the superintendents of indiscriminate use of DDT, and probably won't, because the superintendent is undoubtedly the one person who follows the book when measuring out insecticide that goes into a solution. If there really is a surfeit of DDT in the soil and water, it probably has been put there by people who don't know that they must adhere precisely to instructions when lading out doses. It is the uninitiated who tend to do the overkilling.

One Chicago superintendent is convinced that birds, fish and wildlife aren't menaced by DDT nearly as much as people who own automobiles. That is Paul Frankowski of Beverly CC. Last fall when his course was sprayed for Dutch Elm disease, the DDT drifted onto a busy street that

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intersects the Beverly layout. There was an immediate complaint from quite a large group of irate motorists. The police were called in and Paul was placed in 30-minute custody, but it was one of those technical arrests with no charges being filed. The upshot was that the Beverly ground crew had to clean 20 cars. The maintenance employees found that soap and water alone don't wash off DDT; it takes a wax job.

Some superintendents who switched from DDT to methoxy-

chlor this spring say they did so because momentarily they expected a state law to be passed requiring it. Officials at a few clubs thought it was a good neighbor gesture that they should make, considering that the cost of the changeover wasn't prohibitive. Quite a few superintendents feel that DDT will be ruled out for a few years, then reinstated when the beetles and bugs rapidly multiply again and re-infest the land. Then the hue and cry will come from the opposite direction and the anti-insecticide forces will be outshouted. If DDT isn't brought back, something just as effective will have to be. □

HIRING A SUPERINTENDENT

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will get in touch with him.

Should the applicant be a likely prospect, resume the interview and discuss your needs, the area of responsibility, to whom he will be responsible, condition of the course and equipment, annual budget, special problems and finally, salary range.

It is a seller's market for good superintendents, and you may now be faced with selling what you are offering. No man worth his hire will accept vague promises such as merit raises of unspecified amounts at some unspecified date, a "sizable" Christmas bonus and items that will be taken into consideration at some future time. A good superintendent will be a good businessman (he will be spending your money) and will expect specific and accurate information. In addition to salary (he will likely know the job's potential), there are fringe benefits that for tax or personal reasons can offer special inducement. Some cost the club little or nothing.

These benefits include: housing and utilities, housing allowance, room and board, medical plan, pension plan, cost of living in-

creases, club membership or use of club facilities, meals free or at cost, expenses to local, state and national conferences and meetings, pay while on reserve duty, gas and oil for personal car, use of club vehicle off the property, Christmas or incentive bonus, and life insurance.

It seems hardly necessary to remind anyone that most of these items are offered in industry, guaranteed by labor unions and enjoyed by the armed forces of the United States.

I have not mentioned vacation time, though an *exceptionally* long winter vacation would come under the same heading.

The following is from the GCSAA Professional Code and deserves your attention.

1. Seek counsel for local chapters when applying for a position in a new district.

2. Recommend only GCSAA members.

3. Ascertain the salary levels in the district in which you are seeking employment; then uphold that level.

4. Be sure the position of golf course superintendent is open before making an application.

5. If possible, talk with the man who last or now holds the position of golf course superintendent. □