



Pesticides are needed for golf turf survival even in the most natural surroundings. Crystal Downs Country Club, Michigan.

Another Pesticide Problem — LOCAL LAWS

by JAMES M. LATHAM

Director, Great Lakes Region, USGA Green Section

WILL YOU SIGN this petition to stop the poisoning of air in the community?" asked the young man at the door.

"What poisoning?"

"The stuff they use to kill mosquitoes with."

"What stuff?"

"The same type of chemical they used to make poison gas in World War II."

"Poison gas? World War II?"

"Sure, it's called malathion."

"Well, I don't know. I kinda like to sit on the deck occasionally and really can't stand to hear or feel mosquitoes. I'm not too fond of thinking about the encephalitis cases reported last year, either."

"Oh, there's a better control of mosquitoes now. It's called B.T."

"*Bacillus thurengensis?*"

"Yeah."

"Goodbye!"

The above is an excerpt from a conversation with a young volunteer solicitor last summer. He was in dead earnest and was wearing out his sandals on a door-to-door canvass for funds and signatures in the name of a citizens environmental group. But where do you suppose he got the poison gas routine? And the wrong war? From the people who survive and thrive on public fear of the unknown, science in general, and pesticides in particular.

The United States created the Environmental Protection Agency to develop a means of preventing the degradation of our habitat by our own hand. In spite of the Delaney Clause, the E.P.A.'s FIERA (Federal Insecticide, Fungicide

and Rodenticide Act) is a strong but costly deterrent to fouling our own nest through ignorance of the materials discharged into the environment. It has been thoroughly cursed and praised since its inception, but with adequate restraints it functions well.

THE U.S.E.P.A. is only one agency; it can be dealt with, to some degree, in spite of its bureaucratic makeup. There is a serious weakness in the structure, however, which has opened the door to "anti-" groups of all sorts. While lower levels of government cannot weaken any EPA regulation, they can "strengthen" them. Thus, a state can establish equal or even more stringent regulations. A county can top that, and a municipal entity can go even further. Current

federal and state statutes are ample and effective. We don't need preemptive local laws.

A manufacturer of pesticide just might be able to answer to USEPA or even to the 50 states, but not the nearly 80,000 units of local government in our country. Local rights are as highly prized as the states' rights that started the civil war, but when some of these poison gassers spread their own bit of venom, it is up to *local* defenders of pesticide use to respond. Bringing in outside experts with the best available information doesn't sway many town councils. Residents do.

Golf course properties need the protection afforded by pesticides. Our valuable golf-style turfgrass would not exist as we know it without them. Please note also that few golf course operations need restricted-use pesticides. Most of the products applied to golf turf, trees, and ornamentals can be purchased by anyone, and many of them are available in the nearby garden store. But they *are* pesticides. All weed killers equate to Agent Orange. (And its guilt has not been proven). All insecticides equate to DDT and thin egg shells (but no dead people). Ad infinitum.

HERE'S HOW some local laws can affect golf courses:

1. In Madison, Wisconsin (and other cities) a proposed law would require notification of neighbors if a pesticide was "applied outdoors to property or atmosphere by any means . . ." It also requires signs every 75 feet along the perimeter of the property, posting the name and telephone number of the pesticide user, the date of application and the phrase "This lawn chemically treated. Keep off for 48 hours." The name of the pesticide may also be included and the signs must be removed 48 hours after the application. The fine for violation may be \$500. Each day is a separate violation.

2. In Milwaukee, a ruckus was raised over the use of Roundup herbicide to kill unwanted vegetation on public park land. At a request by the local union (District Council 48, AFSCME) the county's Park Committee banned it. When the whole truth about product safety and protectionist labor policy came out, the ban was rescinded. One can guess the real cause of resistance to a safe but labor-saving herbicide.

3. In Dade County, Florida, a proposal is on the table stating that even though pesticides play a major role in



maintaining the tropic luxury of golf courses, parks, etc. and can be used, they cannot be stored on property within the core of influence of wells supplying public drinking water. These are big circles, encompassing several golf courses, both public and private.

4. Some states ban fungicides containing mercury, but not cadmium formulations, and other states do the reverse. Both have been used to control turf diseases for 50 years or so.

5. There is a very ambiguous law in Texas which prevents reentry by *anyone* into a "field" treated with "a pesticide," for a period of 24 to 48 hours after application. While the regulation is intended to protect farm workers, other interpretations can keep people off golf courses.

6. Even fertilizers can be included in local laws. Shoreview, Minnesota, limits phosphorus fertilizer to 0.5 pounds per 1,000 square feet per year. The aim is to reduce algae growth in lakes. Nitrogen fertilization of turf is under close scrutiny in Long Island and other areas with sandy soils and shallow water tables.

There are, of course, more instances.

IT SEEMS almost sinful to oppose groups like the Audubon Society and the Sierra Club. Their opposition to day-to-day professional use of herbicides, insecticides, and fungicides influences too many political climbers, especially at the local level. The Madison law, strongly supported by Audubon, can be applied to residents who use Raid at a cookout or Safer's Insecticide Soap on an organic garden. A pesticide is a pesticide.

a. Pesticide means

1. Any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest;
2. Any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant.

b. User of pesticides means any person, including individuals and employees or members of any firm, partnership, organization or corporation whether public or private, who applies pesticides or causes pesticides to be applied out-



(Left) *The Food Chain: Armadillos dig up golf greens in search of food.*

(Bottom, left) *Japanese beetle grubs are voracious. Insecticides make modern agriculture possible.*

(Below) *There is no "off season" for turf disease summer, winter, spring or fall. Fungicides make modern agriculture possible.*



doors or the atmosphere by any means.

The future of high quality golf courses is now. Self defense for golfing institutions can begin with support for organizations dedicated to the responsible use or products needed to protect our environment. CAST — the Council for Agricultural Science and Technology — is a calm, studied voice in support of modern methods of food and fiber production needed to support the world's human population without destroying the environment. On a state or local level, agri-business councils help defend the responsible use of plant protectants and pest control materials. They also present positive statements on the benefits of agricultural chemicals to society and our environment. The Golf Course Superintendents Association of America stands ready to aid local individuals and organizations in defending good turf management practices involving pesticides. Information from these sources are *facts*, not fancy. Data is based on scientific evidence and analysis, not worst possible case suppositions. To do

otherwise would be suicidal, with so many powerful organizations watching.

GOLF AND RELATED organizations must make themselves aware of state and local environmental affairs. The rules and ordinances do not write themselves. There must be a person or a group involved who has an axe to grind, an agency employee out to make a name for himself, or a politician fulfilling an election promise or trying to attract a vigorous voting bloc. They do not have to show scientific proof of anything. Their rhetoric is full of "may," "might," or "potential," and accompanied by mutagenic, teratogenic, carcinogenic and any other catch words that generate fear. Scientific studies are sometimes used but the information is often extrapolated to fit a given instance or otherwise twisted to comply with the train of thought being promoted. In all truth, pesticides are considered guilty until proven innocent.

A risk/benefit philosophy is anathema to the anti-science radicals. Zero risk is the only thing acceptable. One adminis-

trator of county environmental regulation told of a wonderful new instrument he had just purchased which was capable of detecting organic pollutants down to a level of one part per billion. When asked what that meant in determining permissible levels of toxicants, he said that if he can detect it, the product in which it was found would be banned. Just like that, even though no real toxicology data had been determined.

The passage of an ordinance or a law under our system of government requires a hearing so that all interested parties may make their feelings known. Unfortunately, few local proponents of pesticide use ever bother to find out about these things. Too many feel that the manufacturers and vendors handle the situation without their help. Agricultural scientists who defend beneficial agricultural chemicals are branded as tools of the agro-industrial complex and chained to them by research grant money. Their expert testimony is discredited by inference.

Hearing rooms are usually packed with supporters of the anti group. Factual testimony is often received by groans, catcalls, and other signs of dissent. It takes guts to defend one's point of view before an audience of one-issue folks who could care less for facts. Nevertheless, it has to be done or lose by default. No defense means no interest, so the antis win again. Lawmakers respond to those they hear.

Lack of early opposition to restrictive legislation is usually because voters in general don't know such a proposition is on an agenda. This is where a local electee or appointee can help if he or she knows of one's interest. Make them aware of your interest in environmental regulations so that they can keep you informed. The fine print in local newspapers is also a source of committee agenda information.

When you find out about such a proposal, get a copy of the proposed bill and study it closely for both straightforward and ambiguous wording. If it should be opposed, get background information on the issue, including who is sponsoring the action and why. Do a lot of homework and develop a copious quantity of hard data on this and related subjects. Rest assured that the sponsors of the bill or regulation will be loaded for bear and will be accompanied by a good cheering section.

OPPPOSITION FOR its own sake doesn't change people's minds. Facts and support by voters do. Expert testimony by a "foreigner" is a great technical help, but the local applicators are the people who must live with the law and vote in elections. If they show no interest or defense, then the proposal will be accepted by default. Furthermore, letters and telephone calls can be used by defenders of pesticides as well as the prosecutors. Remember that the committee or council members need a good reason to vote against a proposition to save humanity from itself. They need all the help they can get from local experts who work with pesticides daily.

Never forget that once a law is on the books it is difficult, if not impossible, to change or expunge it. The same goes for administrative rules once they are published. No one likes to admit his mistakes. Corrective measures take time and money. Therefore, timely, preventive actions are always best.

There is another source of potential aggravation whose actions may prompt or support legislative or administrative

activity: your employees. They can also enter litigation against an operation. You may be a beer-drinking buddy with your spray operator today, but you may not be next month or next year. Any violation of EPA or OSHA rules can come back to haunt you and your employer. Long term exposure to any pesticides may also prompt chronic illness liability actions.

"Right to Know" laws require that employees be made aware of any hazards from any chemical to which they are exposed, whether they apply them or not. Applicators should be given appropriate protective clothing, respirators, and safety glasses when they're necessary, and they should be compelled to wear them. If an employee refuses to use personal safety appliances or fails to follow injury-preventing work rules, that person should be subject to immediate censure, layoff, or discharge. Failure to enforce safety rules smacks of negligence by the supervisor and the employer. Work rules are good insurance, because any subsequent illness can be blamed on negligence of management.

Relative Toxicities of Common Herbicides and Familiar Chemical Compounds

Chemical Compound	Oral LD ₅₀ mg/kg body weight	Possible Lethal Dose for 150 lb. man
Dalapon	7,570	1 pint to 1 quart
Simazine	5,000	"
Roundup	4,320	1 ounce to 1 pint
Baking Soda	3,500	"
Atrazine	3,080	"
Table Salt	3,000	"
Dacthal	3,000	"
Banvel 4WS	2,900	"
Aspirin	1,240	"
Permanent Wave Solution	1,200	"
Silvex	375-1,200	"
2, 4-D ester	760	"
2, 4, 5-T	300	1 teaspoon to 1 ounce
Caffeine	200	"
Gasoline	150	"
Paraquat	150	"

Source: Wisconsin Forestry/Rights-of-Way/Turf Coalition



Ryegrass germinates fast. But knotweed is faster! Herbicides make modern agriculture possible.

(Below) Mother Nature deals harshly with golf course turf.



THE PESTICIDE LABEL is the law. It may be legal to apply less than the specified dosage, but never more. Employees can read, too, and misapplication can be used against the employer anytime.

Record keeping is absolutely essential. Write down all information concerning the application — date, rate, personnel involved, and any other details, whether they're required by law or not. Time of day, temperature and relative humidity, wind movement, etc. should also be recorded in case a claim of drift onto other property is made. Remember, too, that pesticide overspray (direct application to another property) is prima facie evidence of negligence.

The basic reason for environmental and safety regulations is sound. Chemical overuse, misuse and just plain carelessness made them necessary, as did our ignorance of the long term effects some chemicals had on our environment. But

when the sillies influence regulations that go counter to the benefits, some voices of sanity must be raised. The most audible are those of people charged with developing and maintaining a beautiful, enjoyable, and safe environment in which people can enjoy golf, an environment in which living grass, flowers, and trees play major roles in healthful recreation, an environment needing thoughtful use of plant protectants to provide the venue for such an activity to take place, an environment capable of absorbing airborne pollutants and emitting life-supporting oxygen, and one that removes waterborne toxicants through a living turf filter so that groundwater is clear of contamination by golf course management operations. Golf without pesticides would still be golf, but the courses would be far from the enjoyable surroundings to which we have become accustomed. America's golf courses are the very best examples of

how these chemicals can be effectively used by and among people to benefit our environment and our enjoyment of life.

Oh, by the way, our community still uses a mosquito fogger occasionally. It follows a police car with all lights flashing and a bullhorn advising us to close the windows and doors and get the kids and pets inside. We go too, not because of malathion, pyrethrum, or whatever chemical they are using. We just don't like the smell of burning diesel oil generated by the truck.

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