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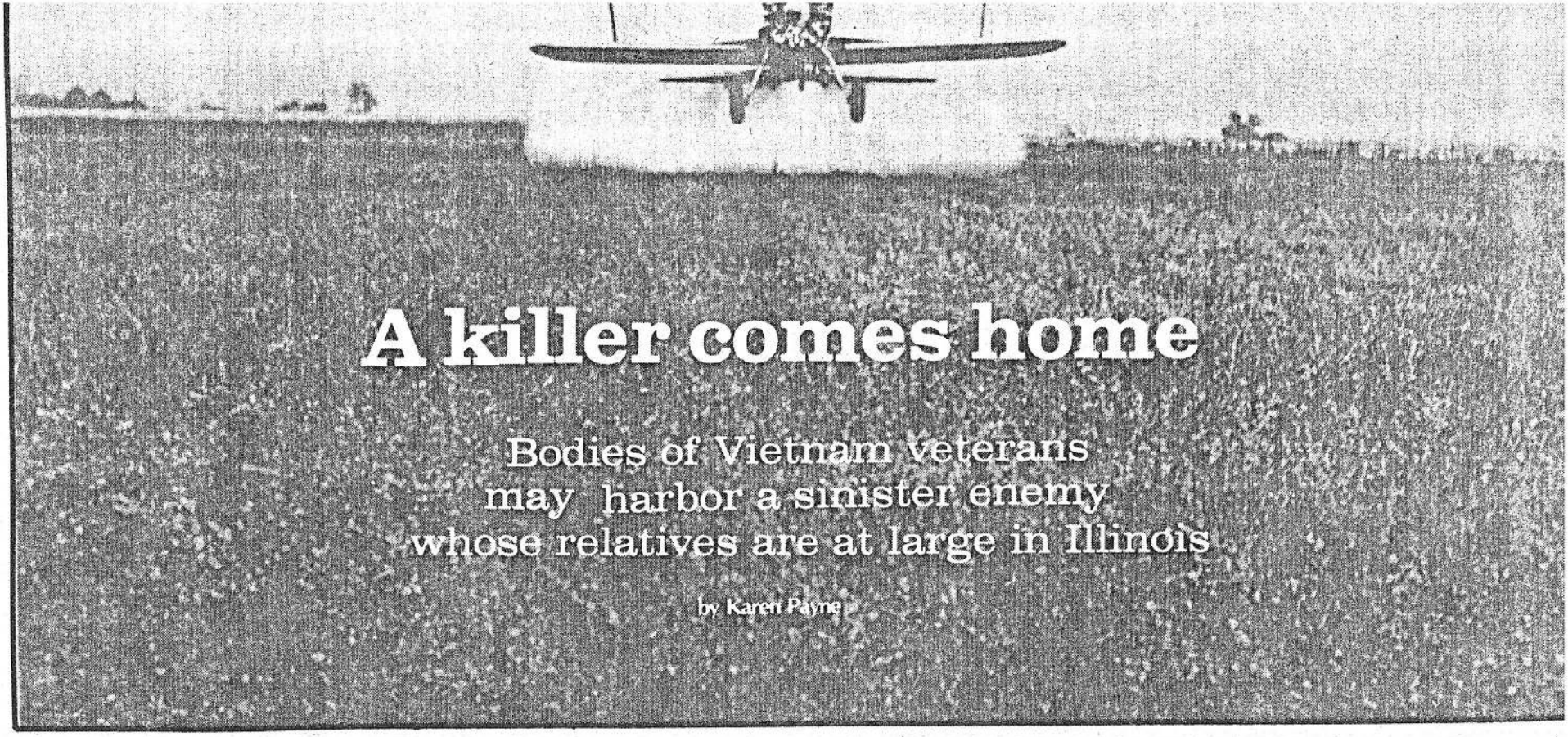


A killer comes home

Bodies of Vietnam veterans may harbor a sinister enemy whose relatives are at large in Illinois

by Karen Payne

"Concern for man and his fate must always form the chief interest of all your technical endeavor. Never forget this in the midst of your diagrams and equations."
—Albert Einstein

"From 1962 to 1971, the Dow Chemical Company and a number of its competitors in the chemical industry conducted an enormous experiment on the health of over four million veterans who served in Vietnam and were exposed to phenoxy herbicides contaminated with TCDD, or dioxin, which the companies knew could cause cancer, genetic damage and birth defects. The experiment has continued on the unsuspecting American people."
—Victor Yannacone, Jr., attorney

"In this now universal contamination of the environment, chemicals are the sinister and little-recognized partners of radiation in changing

Many Vietnam veterans who thought they left the horrors of war behind when they came home are only now awakening to the ironic and tragic realization that they may have brought back a sinister enemy hidden in the cells of their own bodies. And these vets, only recently made aware of their own plight, are helping to alert others to the danger of a deadly chemical poison still being used as a weedkiller in Illinois.

When the herbicide 2,4,5-T was tested in the 1940s at the U.S. Army biological warfare center, it seemed to have no future as a weapon against people, but it had a remarkable ability to make plants literally grow themselves to death. Registered and marketed in 1948, it was an instant success in the American farmer's war on weeds. During the Vietnam War, the U.S. Air Force found a use for 2,4,5-T after all. In a formulation the military jungles, the soldiers could see "Charlie" more easily. But it is an enemy they never saw that may have returned to haunt them.

The 2,4,5-T defoliant contained approximately 368 pounds of dioxin, or TCDD (2,3,7,8 tetrachloro-dibenzo-p-dioxin), an unwanted byproduct or contaminant, formed in the herbicide manufacturing process.

Dioxin is, molecule for molecule, the most toxic chemical substance known, able to enter living tissue through 2,4,5-T-treated food chains and alter DNA, the basic element of life. Some veterans believe the results are a frightening array of ills that include miscarriage among their wives, birth defects in their children, acne, liver and kidney diseases, cancers and death. "We are dealing with a substance more toxic than anything that is regulated, more toxic than ionized radiation, plutonium, radionuclides," says a prominent

(silvex) are still in use in the United States, though how long it will be used depends on the outcome of recent court action. In Illinois it has been used on drainage ditches, pastures, corn and soybeans, and on Air Force bases and railroad and utility rights-of-way. Illinois Power Company spreads 1,800 gallons of 2,4,5-T each year, and the Illinois Department of Transportation Division of Highways uses about fifty gallons of 2,4,5-TP (silvex) in a twelve-county central Illinois area that includes Sangamon County. Manufacturers of the herbicide, including Dow Chemical Company, contend that today's product isn't dangerous because it contains much less dioxin than the "Agent Orange" used in Vietnam. But environmentalists contend that there is no safe amount of dioxin, that any amount is too much.

Until a year and a half ago, individual veterans were isolated with their problems, since neither they nor the Veterans Administration (VA) had made a connection between their symptoms and dioxin. "We talked about spraying constantly, but we didn't pay that much attention," says veteran Ronald Smith of Pennsylvania. "It was just part of life up there, part of the conversation, like injuries and land mines. We had no idea it could harm us."

Then, in 1977, a Chicago VA benefits counselor, Maude DeVictor, processed the case of a Vietnam veteran who believed his cancer had been caused by a chemical sprayed in Vietnam. The veteran died, but DeVictor pursued the claim for his widow, and finally established that he had been exposed to the dioxin-contaminated 2,4,5-T in the military's "Agent Orange." "After that, I began to ask others who had been in Vietnam, 'How many miscarriages did your wife have? Do you have sexual problems? Are your children deformed? Do you have a rash?' " says DeVictor. "And they would say, 'How did you know?' " Exasperated by the VA's refusal to do anything about the patterns of symptoms she was discovering among the veterans, DeVictor made public twenty-seven documented cases of cancer among Chicago veterans in which the only apparent common factor was exposure to dioxin. At last veterans could make a connection between their illnesses and a possible cause.

The extreme toxicity of dioxin has long been recognized, but not until recently did scientists have the technology to measure minute quantities of adequately assess dioxin's effects. Though many questions remain unanswered, studies now have shown that even at low levels, measured in parts per trillion, dioxin can produce deleterious effects in animals, that it can "bioaccumulate" in living tissue through repeated small exposures, and that it will cause cancer, birth defects and genetic mutations in animals.

In 1970, biochemist Dr. Jacqueline Verrett of the U.S. Food and Drug Administration testified before a U.S. Senate subcommittee that dioxin is "100,000 to a million times more potent" than thalidomide as a cause of birth defects in some species. Dr. John Bederka, chief of toxicology at the University of Illinois Medical Center in Chicago, says dioxin is "100,000 times more toxic than cyanide — but cyanide is lethal with a single dose, whereas we don't know how dioxin is most toxic: Ten molecules a day for a year may be more toxic than a one-time exposure." Once it enters soil or water, the dioxin molecule is both stable and persistent, and it has been found in trace levels in cattle fat and in human mother's milk. Some scientists have concluded there is no way to determine what is a safe level of dioxin in the environment.

After DeVictor's revelation of the health patterns she found among veterans exposed to dioxin in "Agent Orange," a group of Chicago-area veterans and veterans' counselors formed CAVEAT (Concerned American Veterans Against Toxins). Their purpose is to provide information, assistance and advocacy for veterans who were, according to CAVEAT president Ron DeYoung, "being turned away from VA hospitals and told the dioxin problem did not exist, that it had been created by the media." In the past twelve months, CAVEAT has been contacted by scores of veterans, among whom DeYoung says he finds the familiar patterns of a rash (chloracne, which is considered the most reliable indicator of dioxin exposure), plus other symptoms. The VA still says there is no proof of a causal relationship between exposure to dioxin and the veterans' health problems.

In another part of the country, Paul Reutershan of Connecticut, a veteran who had colon cancer, asked a firm of New York lawyers to file suit on his behalf, claiming that dioxin had caused him to be ill. The suit was filed as a personal damage claim; it failed in court. So Reutershan's case was turned over to another kind of veteran — attorney Victor John late 1960's. In December, 1978, Reutershan died.

In January this year, Yannacone filed the first of a growing number of class-action suits against manufacturers of herbicides containing dioxin 2,4,5-T and its cousin, 2,4,5-TP, (silvex). The suit was filed on behalf of Reutershan and "all those so unfortunate as to have been and now to be similarly situated at risk from the toxic effects (of dioxin)."

It was Yannacone who in 1966 brought suit against the use of DDT. It was the first successful effort to establish a role for the courts in providing remedies against environmental toxicants. As cofounder and first counsel of the Environmental Defense Fund (EDF), Yannacone defined the basic concepts of environmental law, basing his arguments for the right of all Americans "of this generation and of those generations yet unborn" to a healthful environment, upon the Ninth, Fifth and Fourteenth Amendments of the U.S. Constitution.

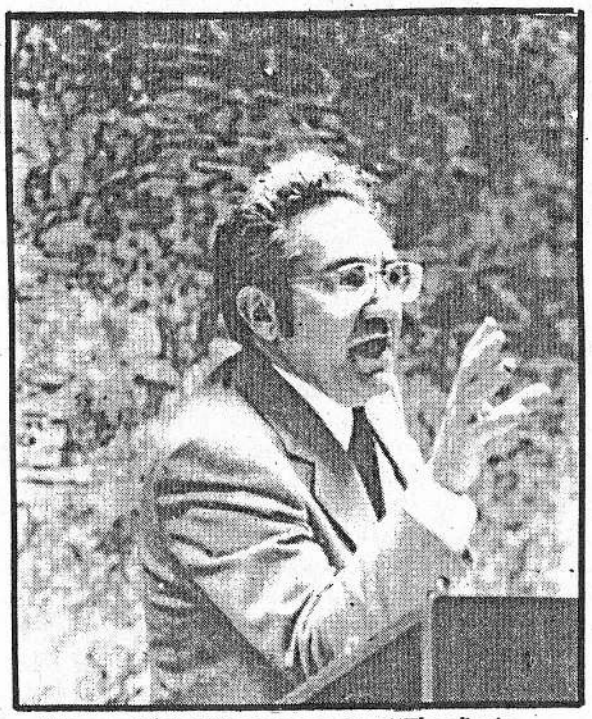
While some environmentalists had hoped that creation of the Environmental Protection Agency would make DDT-type lawsuits unnecessary, Yannacone predicted the EPA would "fail in the regulation of toxic substances and fail in promulgation of ecologically sound, environmentally responsible, socially and politically feasible regulations to protect the environment." He said the new federal environmental law would lead to procedural lawsuits that would do little to protect the public.

In fact, the federal EPA has a dismal record in the area of toxic substance control. As reported in a January, 1979 issue of *Science* magazine, the EPA in eight years has managed to restrict only five pesticides (heptachlor/chlordane, aldrin/dieldrin, DDT, Mirex and DBCP), yet the EPA estimates that a third of the 1,500 active ingredients in registered pesticides are toxic and a fourth are carcinogenic. Of 14,000 suspected carcinogenic chemicals in commercial use, the EPA has set standards for only twelve.

"There is no greater fraud upon the people than providing an agency whose primary public information effort is to convince the people that they are

There will be an informational workshop on "Agent Orange" and its effects at 1:30 p.m. April 27 at the University Inn, 301 E. John Street, Champaign.

Karen Payne



Attorney Victor Yannacone, Jr.: "The dioxin contaminant seems to be a time bomb."

being protected and that which they hold dear is safe, when in fact there is no protection provided and the safety is illusory," Yannacone says. "The EPA has not protected the environment, and the American people are less safe now from a variety of environmental ills than they were at the time the EPA was created."

If, as Yannacone alleges, dioxin produces genetic defects, the extent of the effects may not be measurable for a generation. Some scientists theorize that dioxin may already be a major factor in the rise of about 17 percent a year in U.S. cancer rates, but there is no way to tell for sure. What is known is that a large number of people have been, and still are being exposed to dioxin. The VA estimates that as many as 4.2 million veterans were exposed to dioxin in Vietnam, and more may have been exposed in this country.

During the period when 44 million pounds of 2,4,5-T were dropped in Vietnam, 78 million pounds were used in the United States, where the herbicide was virtually unrestricted. Today, use of the herbicide is restricted to certain uses, but it still is being used. As late as last year, six to seven million pounds of 2,4,5-T were spread over three million acres in the United States, and two million pounds of 2,4,5-TP (silvex) were used. Although the herbicides are primarily used on forests, ranges and riceland, some, as mentioned above, has found its way into Illinois.

The U.S. government has had limited success in several attempts to restrict the use of the products containing dioxin. In the 1960s, reports of an increase in birth defects and liver cancers among inhabitants of sprayed areas of Vietnam were dismissed as anti-American propaganda.

But by April, 1970, the U.S. Surgeon General issued a statement in which he said the use of 2,4,5-T might be hazardous to health. Some uses of 2,4,5-T were restricted by the U.S. Departments of Agriculture and Health, Education and Welfare, and the EPA examined 2,4,5-T for possible restriction as early as 1971. But the move was met with industry resistance and bureaucratic delay, so nothing significant was done until 1978. In that year, with new evidence of dioxin's ability to concentrate in the food chain, the EPA started an RPAR (Rebuttable Presumption Against Registration) that could lead to cancellation of 2,4,5-T's registration. Just last month, the EPA put 2,4,5-T and silvex on "emergency suspension" for some uses, based on EPA studies of miscarriage rates among women in Alsea, Oregon, a forest area where use of 2,4,5-T has been widespread. Dow Chemical Company, which has strongly defended 2,4,5-T all along, recently took the EPA to court, seeking to overturn the suspension ruling. Even if the EPA succeeds in defending its suspension order, and then takes the most stringent action it can, herbicides containing dioxin will still remain on the market for another two years or more, according to Robin Woods of the EPA.

In contrast to the EPA's moves, Yannacone's "Agent Orange" complaint asks the court for an immediate injunction against all further marketing,

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