

SPRAY THE FOREST, KILL THE LAND

Agent Orange: Birth defects, mutations

by **Ralph English**

Operation Ranch Hand was the codename given to the aerial spraying of herbicides by US forces in Vietnam. Defoliation drove back guerillas from their forest positions. The US dumped 72 million litres of herbicides on Vietnam between 1961 and 1972. Between 1966 and 1972, 45 million litres of Agent Orange were sprayed.

The US army conducted secret testing of Agent Orange in Gagetown, N.B. in 1966. Agent Orange was effective in killing broad leafed plants by altering their growth processes.

The main components of

Agent Orange are 2,4-D and 2,4,5-T, both of which contain a dioxin known as TCDD. The half life of dioxin is believed to be at least ten years.

The effects of exposure to dioxin have been a controversial matter. Some scientists have conducted tests with animals and found dioxin to cause birth defects, mutations and cancer. Other scientists, such as those at the US Dept. of Health and Human Services, recognize only the mutations caused by dioxin.

Scientists are also divided on the issue of possible human health hazards. A North Vietnamese study has shown that the wives of soldi-

ers in South Vietnam had higher rates of birth defects than did those whose husbands remained in North Vietnam. The study is suggestive, but far from adequate proof of the human health hazards of Agent Orange.

Along with the veterans the Agent Orange issue has come home to the US. The veterans exposed to the chemical claim that cancer, loss of libido, neurological problems and birth defects in their children are caused by their exposure to Agent Orange.

However, there is a seven year statute of limitations on suing the government for any injury sustained by a service-

man during his enlistment. The effects of Agent Orange have only recently become apparent.

For this reason 20,000 veterans have directed a class action suit against Dow Chemical and the four other

But manufacturers have not always been so cooperative. Among the documents subpoenaed by the courts was a 1965 memo written by Dow's director of toxicology which stated that dioxin "is exceptionally toxic; it has tremend-

Environmental ecologists shock

by **Samantha Brennan**

The case against herbicide spraying is finding support from a variety of grassroots organizations. Present in many politically active groups is the growing realization that herbicide spraying is an issue everyone should be concerned about.

"We fundamentally believe environmental issues are women's issues," said Betty Peterson of the Voice of Women (VOW). Although VOW usually is associated with disarmament, most members support the court action taken against herbicide spraying.

Other women's organizations agree with VOW.

The Canadian Research Institute for the Advancement of Women (CRIAOW) held a three-day conference in Halifax in May to discuss women and the environment.

Linda Christiansen-Ruffman, chair of CRIAOW and sociology professor at Saint Mary's University, also says peace and environmental issues are issues with which women should be involved.

Ruffman is disturbed by the way the herbicide dispute was settled in court. She sees little room for scientific process in the the nature of scientific

process and the judiciary process are not compatible.

"In science things are never totally proven, we can only achieve open ended conclusions," said Ruffman, adding that the legal system needs a definite "yes or no" answer.

"The court has to rethink its decision about where to place the burden of truth," said Ruffman.

Both the herbicide case and the cruise case demonstrate the real difficulties community groups have responding to government-approved dangers, she said.

These cases bring to light the issue of public participation in the decision-making process. Ruffman said when individuals are bankrupting themselves in what they see as a last-ditch attempt to have some input, this demonstrates that the government isn't providing a forum for public opinion.

"This has to be changed," said Ruffman.

Catherine Richards, president of the concerned parents group in New Brunswick, is equally frustrated with the government's attitude toward community participation in environmental issues. The group was formed in 1976 in response to the report on

Reye's Syndrome. Their attempts to convince the provincial government of the dangers of herbicide spraying have met with little success.

"I think the only hope is to get the federal regulations changed," said Richards.

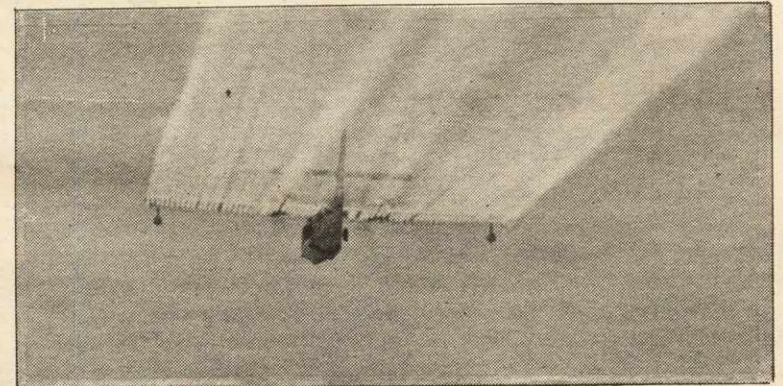
Concerned parents plan to attend a pesticide board hearing chaired by an official from the Department of the Environment on December 5 to push for regulations regarding the ground spraying of 2,4,5-T.

This chemical, banned in most other Canadian provinces and the United States, has widespread use in New Brunswick.

"We really have a problem in New Brunswick," said Richards. "We're all alone out here using this stuff."

But Richards has no great expectations for the December pesticide board meeting. She criticizes the government for discouraging attendance by holding it in St. Stevens, distanced from the main population centres in N.B., and not publicizing the hearing.

"They're just observing the letter of the law," said Richards. "The government really doesn't want to listen."



manufacturers of Agent Orange. In response, the manufacturers sued the government on the grounds that they ignored warnings by the manufacturers concerning the possible harmful effects of Agent Orange.

A 1967 Rand Corporation report had warned of health hazards and in 1970 Dow Chemical had recommended lower levels of dioxin be used in Agent Orange.

ous potential for producing chloracne and systemic injury." A postscript added that, "Under no circumstances may this letter be reproduced, shown or sent to anyone outside of Dow."

The use and manufacture of Agent Orange is now banned throughout the US. It is also banned in 3 Canadian provinces. Nova Scotia is not among them.

A fight for awareness

The recent herbicide debate and resulting court action has brought an environmental issue to public attention, and the Ecology Action Centre (EAC) has been providing people with the information they need to understand the problem.

The EAC is a member-owned organization located in the old public archives building at Dalhousie.

The general public is invited to work in their library, the largest collection of environmental writings of its kind in Nova Scotia.

Making information available is one of the EAC's major concerns. In addition to the library EAC publishes a newsletter, participates in the

outward reach program, and maintains a staff of paid and volunteer workers.

All this is made possible by the members. EAC is a real grassroots organization. It receives no ongoing funding, but relies on individuals for financial support. This means that EAC is very responsive. The issues investigated are those that the members wish to find out about.

The best way to find out about EAC is to visit their office and talk to them. They are always interested in finding concerned people who may become members. And if you wish to learn about any issue, the EAC is the best place.



BETWEEN THE ISSUES

ecology
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