

The Fredericton Daily Gleaner
News, Thursday, June 23, 2005, p. A5
Health

Agent Orange contaminants linger - expert

JOEL O'**KANE** The Daily Gleaner

The Canadian military will be looking in the wrong place if they conduct more soil tests at a CFB Gagetown herbicide dump this summer, says an Agent Orange expert.

Dr. Wayne Dwernychuk has spent years studying Agent Orange's after-effects in Vietnam and is the senior vice-president of Hatfield Consultants Ltd., a British Columbia-based research company.

He said he has seen countless cases of birth defects and other ailments in the Vietnamese, decades after Agent Orange and other dioxin-contaminated herbicides were used during the U.S. military's Operation Ranch Hand in the Vietnam War.

Dioxin, called one of the most toxic substances known to man, has possible links to cancer, reports the U.S. Institute of Medicine.

The U.S. dumped Agent Orange on the dense Vietnamese jungle, trying to clear enemy hiding places in the brush, at a rate of three gallons per acre.

There's still dioxin being found in Vietnamese soil, Dwernychuk said. According to a 1968 U.S. military technical memorandum, three gallons per acre was also the spray rate at CFB Gagetown as part of a land-clearing project.

If it can still be found in Vietnam, it could still be found at CFB Gagetown, he said. "I'm sure if you take a soil sample from an area that was sprayed consistently, I would suspect you could find something there," Dwernychuk said. "Depending on the amount of erosion and the amount of movement that would have occurred over the years, I suspect there is some residual level."

A 1985 soil test done at a CFB Gagetown site, where empty barrels of herbicide were buried, showed no signs of dioxin contamination.

But those test results are problematic for two reasons, Dwernychuk said. One, the tests were probably conducted with low-resolution detection equipment. Two, it doesn't say anything about the soils that were sprayed in 1966 and 1967. "The sampling of the Gagetown container dump site has no bearing whatsoever on the dioxin contamination question related to Agent Orange (and) Purple applications on the base," Dwernychuk said. "Chemical data generated through that exercise in no way removes concerns related to the potential for present day dioxin contamination on the experimental plots used by the US military."

But until the testing is done, he said, it's unclear how high the concentrations would be or if it's still harmful to humans.

On Tuesday, Karen Ellis, Defence assistant deputy minister of infrastructure and environment, quoted the Canadian Force's Surgeon-General and U.S. studies that said it's likely sunlight degraded any herbicide lingering in the air from the helicopter spraying.

"The vast majority of Agent Orange sprayed in Gagetown would have been absorbed by the forest canopy or would have broken down in sunlight, with very little reaching the ground," she said in Ottawa.

"It is extremely unlikely that individuals travelling through the Gagetown test area, even shortly after spraying, could have received an exposure to Agent Orange of any health significance."

While dioxin can degrade in the presence of ultraviolet light, such as from the sun, it's still a long process and takes longer than a few days, Dwernychuk said.

If it gets beneath the soil, away from UV light, virtually no degradation takes place. Even regularly tilled Vietnam farm soil shows dioxin contamination, he said.

He called the comment about sunlight degrading the herbicide at CFB Gagetown as "the most idiotic I have heard on the whole affair."

"UV will assist in the destruction of dioxin, but it takes quite a while," Dwernychuk said. "It's not a rapid process."

As dioxin is a very stable molecule that can linger for decades after its use, Dwernychuk said enough doubt exists to warrant a soil test.

Using today's high-resolution detection equipment, it's even possible dioxin could be found at the dumpsite, he said.

Dr. Coreen Hamilton is the scientific director at AXYS Analytical, another B.C.-based company that has done dioxin tests for departments of both the Canadian and American governments.

She confirmed low-resolution technology was being used in 1985. She said AXYS was among the first Canadian companies to get a high-resolution scanner a few years after that.

"It's likely these analyses, if they were done in 1985 or earlier, were using the older technology," she said. "If they were done nowadays, things not detectable in those days might now be detectable."

High-resolution equipment has detection limits 100 times lower than low-resolution, Hamilton said.

Where results were once measured in parts per trillion, she said they're now being measured in fractions of one part per trillion.

"Therefore it is possible that analyses conducted with the newer technology will find concentrations of contaminants when analyses by the old technology did not," she said.

So far, the military hasn't committed to further testing.

A public meeting with National Defence will take place at 1:30 p.m. Thursday at the base auditorium, building F-12.

Category: Society and Trends

Uniform subject(s): National Defense and armed forces

Subject(s) - The Fredericton Daily Gleaner : Agent; Orange

Length: Medium, 658 words

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Doc. : news·20050623·FG·206230533