Viets and Vets Fear Herbicide Health Effects

Vietnamese official brings concerns to Washington

A spirited interchange about the health effects of the herbicides sprayed in Vietnam was sparked by the visit to Washington on 9 May of Ton That Tung, vice minister for health in North Vietnam during the war years.

Tung is a member of the Vietnamese government committee on science and technology. His visit to the United States, to promote scientific exchange and cooperation, was sponsored by the American Friends Service Committee, whose goal is reconciliation between the two countries.

Tung, a surgeon by training, has made a special study of the effects of herbicides. The issue has obvious political dimensions, but Tung was speaking as a scientist when he addressed a small seminar convened by the Federation of American Scientists.

The incidence of liver cancer in 1974 to 1977 apparently increased in South Vietnam, the area that received the bulk of the spraying, whereas the incidence in North Vietnam stayed the same. This suggests a new carcinogenic agent in the environment, and Tung's suspicions are focused on dioxin, the immensely toxic contaminant present as an impurity in the 2,4,5-T herbicides sprayed during the war. Tung is careful to stress that no linkage has been established: "I must caution you that these numbers do not prove anything. They just give you the impression that the incidence of cancer is on the increase."

Tung also reported cases of the skin disease chloracne, birth defects, miscarriages, and chromosome breaks among Vietnamese who inhabited sprayed areas. He has had tissues of some of the patients tested for dioxin residues but none has been found. "Whatever we deduce from these observations is purely suggestive because we have no scientific evidence equivalent to your scientific techniques in the United States," Tung said. He hopes to mount a large-scale epidemiological survey to see if the apparent increase in liver cancer is real.

Although talking in hypotheses, Tung seemed like a man who would not be surprised if all his suspicions about dioxin turned out to be correct. His talk produced a spectrum of reactions. Alvin Young, an environmental specialist with the U.S. Air Force at Brooks Air Force Base, Texas, challenged the basis of Tung's thesis on the grounds that 90 percent of herbicides used in the Vietnam war was sprayed on scarcely populated jungle areas, with only 8 percent used on crop destruction missions and 2 percent on controlling vegetation in inhabited areas. Young therefore thought it unlikely that the population could have been heavily exposed to dioxin, particularly as the chemical does not spread in the environment, and has a half-life of 1 year, or of only days when exposed to sunlight.

Tung thanked Young for his opinion but said that dioxin does spread: although most of the spraying was in the mountains, dioxin has been detected in the estuary of the river at Saigon, where R. W. Baughman and Matthew Meselson of Harvard University had detected it in the tissues of fish.

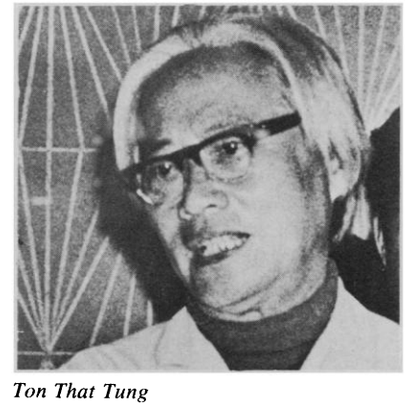
A representative from the Environmental Protection Agency (EPA) noted that in Oregon there had been "a larger drift and spread of dioxin than we had anticipated"; Tung's linkage of dioxin with liver cancer worried him, however, because the induction period seemed too short. Had Tung considered other possible carcinogens, such as aflatoxin? "We didn't eat peanuts during the war," Tung shot back. He did not agree that the higher incidence of liver cancer could be the result of better diagnoses and reporting.

The EPA man said he would be grateful for copies of Tung's data because "the Dow Chemical Company has been taking us to court."

Asked if skin color made any difference to the effects of dioxin, Tung said, "We have chloracne just in the same way as the Italian children in Seveso."

An American scientist who has met Tung and discussed his data is James R. Allen of the University of Wisconsin. Allen, a toxicologist, has shown that dioxin causes cancer in rats in a variety of tissues, including the liver. Allen says that Tung's findings "are the clinical observations of a physician, but there is no hard data to support claims that the increased incidence of liver cancer in Vietnam is the result of exposure to dioxin." Tung expressed a wish for a cooperative study of the dioxin question, but Allen feels that "our first obligation is to do a thorough study of our own veterans," who are also an easier group to study than Vietnamese populations.

Veterans who fought in Vietnam have recently begun complaining in significant numbers of health effects due to herbicide exposure. A Chicago-based organization known as CAVEAT claims to represent 2000 veterans suffering from alleged herbicide symptoms such as chloracne, numbness of the fingers and toes, and irritability. The Veterans Administration has a task force studying the problem but reports that only 500 claims of herbicide-related maladies have been filed with it, 300 of which were made in Chicago after a 1978 TV program on the issue.



Ton That Tung

According to Air Force figures, some 44 million pounds of 2,4,5-T were sprayed on South Vietnam from 1962 through 1970. The dioxin content is estimated to amount to 368 pounds. A recent report* by Young and other Air Force colleagues concludes that the various allegations—Tung's included—of human health effects in South Vietnam cannot be confirmed.

Tung used two interpreters at his Washington seminar, starting in Vietnamese but switching to French when the scientific argument quickened in pace. He has a thick head of longish white hair, but the picture of venerable age was belied by the firmness with which he responded to the Air Force attack. He was studiously courteous to his hosts, concluding his appearance with the statement that "It is really in the United States that I have learned most about dioxin."—NICHOLAS WADE

*Alvin L. Young *et al. The Toxicology, Environmental Fate and Human Risk of Herbicide Orange and its Associated Dioxin.* October 1978. National Technical Information Service, 5285 Port Royal Road, Springfield, Va. 22161.

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