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Use of Herbicides in Southeast Asia

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Description Notes

Dear Mrs. Cleary

Aerial spray of herbicides has been conducted in Southeast Asia since January 1962, and as of 31 December 1967, 2,214,600 acres have been treated. Herbicide operations, in particular, are one of the more controversial aspects of the conflict in Southeast Asia due to the limited knowledge of the general public. The most important point one must realize to understand the defoliation process is that the chemicals currently in use do not affect the soil and attack only the plant or tree on which it is sprayed. Dr. Charles E. Minarik of the Plant Science Laboratory at Ft. Detrick, Md. has gone on record with the position that defoliation in Vietnam is essentially no more of a threat to the balance of nature than the spraying of vegetation along power lines, railways, and highways in the United States.

The chemical herbicides which are being used by the Republic of Vietnam in clearing out jungle growth to reduce the hazards of ambush by Viet Cong bandits have been used commonly in the United States and other countries for the past 15 years by farmers, ranchers and home owners.

The two herbicides -- known as 2,4-D and 2,4,5-T -- are used extensively in most countries of both the free world and the communist bloc for selective control of undesirable vegetation. These chemicals are better for vegetation control than other compounds of a similar nature because they are not harmful to people, animals, soil or water. They

are described by research scientists as "non-toxic -- even when fed to cows and livestock at rates exceeding those used for vegetation control."

The importance of the use of herbicides in agricultural production is universally recognized. In fact, Premier Krushchev, in reporting to the U.S.S.R. Central Committee on March 5, 1962, stressed the importance of herbicides and called for production on an industrial basis.

The two chemicals, 2,4-D and 2,4,5-T, are now in regular use, particularly for weed control in rice paddies, other field and horticultural crops, and rangeland, in Asian countries such as Burma, Thailand, Philippines, Republic of China, Japan, India, Indonesia, Australia and New Zealand.

The herbicides are being used by the government of the Republic of Vietnam in the guerrilla warfare with the Viet Cong in order to increase visibility on the ground and from the air.

At low rates of application, the herbicides wither the leaves and cause them to fall from the plants, but jungle plants usually regrow in about 30 days. At higher rates of application, the herbicides will cause defoliation, kill the top growth of brush, plants and trees, and prevent regrowth for a year or more.

The government of South Vietnam has been very thorough in its investigations and decisions to use the chemicals 2,4-D and 2,4,5-T.

Scientists first set up a list of standards to be used in selecting any chemicals that might be used extensively in the country.

All the areas sprayed in South Vietnam are first mapped and then selected after careful study.

Scientists have long known that the herbicides 2,4-D and 2,4,5-T are not toxic to people or animals. The two chemicals are registered in the United States by the Department of Agriculture for use on food crops, in rivers and ponds, and on rangelands where livestock graze. They are available for purchase throughout the United States and are labeled nonpoisonous.

Records on the production of the herbicides during the past 15 years show that workers in the chemical manufacturing plants have not been adversely affected. There has been no documentable death or injury from association with the chemicals. The same is true in the use of these chemicals in Vietnam.

The South Vietnamese are also learning that the herbicides can be most useful for them. In addition to getting rid of weeds, the farmers are now harvesting the trees of the sprayed jungles and using the wood for fuel. Previously the farmers were afraid to enter the jungles because of the threat to their lives from ambush by the Viet Cong.

After harvesting the wood, the farmers are clearing some of the land for agricultural use.

In fact, the farmers have been so enthusiastic about the clearing of lands that the government of Vietnam has asked them not to harvest wood too soon after chemical spraying because this practice reduces the effectiveness of the herbicides in controlling the vegetation.

The herbicidal effects of 2,4-D and 2,4,5-T were discovered and published in 1944. Commercial manufacture of the chemicals was developed in the United States between 1944 and 1947.

During the 15 years since 1947, U.S. production of the two herbicides has averaged about 25 million pounds (11.3 million kilograms) per year. The herbicides are used on an average of 30 million acres (12 million hectares) in the past 15 years, while most of this land was under cultivation.

The herbicides are used in the United States to control weeds in cereal crops such as corn, wheat, oats, rice, barley and grain sorghums; for control of weeds on rangeland where livestock graze; for clearing ponds and streams of undesirable plant growth, such as water hyacinths; on lawns and parks to kill weeds where pets and children play; to kill poison ivy and other poisonous plants in wooded areas near camp sites; and for killing weeds, such as ragweed and heavy-pollen producing plants, which are a threat to good health or create allergies in some people.

In a study conducted from 15 August 1967 to 1 December 1967, the Midwest Research Institute of Kansas City, Missouri concluded that: "There is no question that the greatest short-term and long-term direct ecological consequence of using herbicides in Vietnam or anywhere else is the destruction of vegetation. It should be borne in mind that as long as soil sterilization is not an objective, destruction of vegetation by herbicides is a selective process and that denuded earth

does not occur. Furthermore, the end result of the use of the herbicides from an ecological standpoint represents a process that is common after uncontrolled fires, or the wild regrowth of abandoned fields, that is, the ecosystem is set back to an earlier sere."

It is a pleasure to be of assistance to you in providing this information.

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