

A light plane sprays some of the 19 million gallons of defoliant used in Viet Nam. Each plane could destroy 350 acres of forest per run. A spray run took less than 4 minutes, used 1,000 gallons of Agent Orange and was often sprayed by 3 planes flying side by side. That meant 1 run equaled 1,000 acres of jungle destroyed.

- Nothing about the most controversial war in our history created more discussion than the use of chemicals.
- Mostly they were used as defoliants in an attempt to make the jungle less dangerous to Allied soldiers and less of a refuge to Victor Charles. It didn't work very well and the cost is immeasurable.
- The other use of large quantities of chemicals was in insect control.
- There is a very strong feeling amongst veterans that huge medical problems have resulted for themselves and their descendants.



"Patches", The Air Force C-123 that took the most ground fire of any aircraft flying herbicide missions in Vietnam (U.S. Air force Photo)

What is it and why use it?

Agent Orange was the code name for a herbicide developed for the military, primarily for use in tropical climates. Although the genesis of the product goes back to the 1940's, serious testing for military applications did not begin until the early 1960's.

The purpose of the product was to deny an enemy cover and concealment in dense terrain by defoliating trees and shrubbery where the enemy could hide. The product "Agent Orange" (a code name for the orange band that was used to mark the drums it was stored in, was principally effective against broad-leaf foliage, such as the dense jungle-like terrain found in Southeast Asia.



The product was tested in Vietnam in the early 1960's, and brought into ever widening use during the height of the war (1967-68), though its use was diminished and eventually discontinued in 1971.

Agent Orange was a 50-50 mix of two chemicals, known conventionally as 2,4,D and 2,4,5,T. The combined product was mixed with kerosene or diesel fuel and dispersed by aircraft, vehicle, and hand spraying.

An estimated 19 million gallons of Agent Orange were used in South Vietnam during the war.

The earliest health concerns about Agent Orange were about the product's contamination with TCDD, or dioxin. TCDD is one of a family of dioxins, some found in nature, and are cousins of the dibenzofurans and PCB's.

The TCDD found in Agent Orange is thought to be harmful to man. In laboratory tests on animals, TCDD has caused a wide variety of diseases, many of them fatal. TCDD is not found in nature, but rather is a man-made and always unwanted byproduct of the chemical manufacturing process. The Agent Orange used in Vietnam was later found to be extremely contaminated with TCDD.

The Fifteen Herbicides Used in Vietnam

- **PURPLE:** A formulation of 2,4,-D and 2,4,5,-T used between 1962 and 1964.
- **GREEN:** Contained 2,4,5-T and was used 1962-1964.
- **PINK:** Contained 2,4,5-T and was used 1962-1964.
- **ORANGE:** A formulation of 2,4,-D and 2,4,5-T used between 1965 and 1970.
- **WHITE:** A formulation of Picloram and 2,4,-D.
- **BLUE:** Contained cacodylic acid.
- **ORANGE II:** A formulation of 2,4,-D and 2,4,5-T used in 1968 and 1969 (also sometimes referred to as "Super Orange")
- **DINOXOL:** A formulation of 2,4,-D and 2,4,,5-T. Small quantities were tested in Vietnam between 1962 and 1964.
- **TRINOXOL:** Contained 2,4,5-T. Small quantities tested in Vietnam 1962-1964.
- **BROMACIL**
 - **DIQUAT:**
 - **TANDEX:**
 - **MONURON:**
 - **DIURON:**
 - **DALAPON:**

Small quantities of all of the above were tested in Vietnam, 1962-1964.