

Understanding Science and Scientific Methods:

An Overview for Lawyers

SUMMARY – 19 September 2005

Class on 12 September 2005 Covered Topics 2.b. and 2.c.i. on the Syllabus

I. Dioxin and Agent Orange

A. Basic Science of Dioxin –

B. The Use of Agent Orange in Vietnam

1. Agent Orange – a 50 – 50 mix of 2,4-D and 2,4,5-T (source of the TCDD contamination).
2. A total of 17.6 million gallons was sprayed over **3.6 million acres** in Vietnam. Agent Orange accounted for 11.3 million of the 17.6 million sprayed. About 3 gallons of herbicide per acre or about .009 ounces per square foot.
3. The amount of TCDD ranged from 0.05 to 50 parts per million (ppm).
4. **There is some evidence that TCDD breaks down under UV radiation. There is little evidence for any damage to soil.**
5. **In 2-4 months an area would appear barren.** It killed the leaves on trees but not the tree itself. If it was sprayed 3 or more times on the same area it could kill trees.
6. ***There is no question that many, many more lives were saved by agent orange than will ever be lost.***

C. The Health Politics of Agent Orange and Dioxin

1. The Sample Population: **Employment & Unemployment:**

Very few differences between Vietnam Veterans and non-Veterans. Slight bias towards professional occupations of non-veterans.

2. The Sample Population: **Vietnam Casualties:** No race or ethnic bias. Very, very small income bias.