

# PERSONS EXPOSED	SYMPTOMS	# ANIMALS EXPOSED	SYMPTOMS	REFERENCES
# PERSONS AFFECTED		# ANIMALS AFFECTED		
20 cases reported	Alleged birth defects and malformations (anencephaly; spina bifida). Study indicated that the number of cases reported were not significantly different from expected; no correlation found with spraying of 2,4,5-T.	—	—	68,86
6 affected	Chloracne	—	—	38
—	—	—	—	21
4 cases reported	Increase in perinatal death & birth defects. Study indicated the number of perinatal deaths are within normal frequency for the region; no correlation found with spraying of 2,4,5-T.	Study conducted on animals in the area.	No increase in illness.	68

CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER.

023515

TABLE 3: Summary of Incidents Resulting in Possible Environmental Contamination with 2,3,7,8-TCDD or other Polychlorinated Dibenzo Dioxins (PCDDs)

DATE OF INCIDENT	LOCATION	INCIDENT RESULTING IN ENVIRONMENTAL CONTAMINATION	SOURCE OF CONTAMINANT	CONTAMINANT LEVELS	EXPOSURE ROUTE
1944-present; reported in 1975-1976	New Zealand	Shrub control by spraying defoliants.	2,4,5-T	4×10^{-7} g/acre	
1945	Berlin/Germany	Frying of vegetables in a fat-like substance found in the bomb ruins.	Substance thought to have been hexachloronaphthalene	N. A. ^a	Ingestion
1949-1971	Australia-Union Carbide of Australia Limited	Landfilling of wastes from production of 2,4,5-TCP and 2,4,5-T	Dioxin contaminated 2,4,5-TCP and 2,4,5-T wastes.	16-30kg dioxin.	NO INCIDENT OF EXPOSURE REPORTED
1950-present reported in 1975-1977	Yarram, Victoria/ Australia	Shrub control by spraying defoliant.	2,4,5-T	N. A.	

a. N. A. - not available

(8)

# PERSONS EXPOSED	SYMPTOMS	# ANIMALS EXPOSED	SYMPTOMS	REFERENCES
# PERSONS AFFECTED		# ANIMALS AFFECTED		
None reported from consumption of chicken.	None reported.	Millions of chickens	Dyspnea, wobbly gait, stunting, subcutaneous edema, sudden death. At necropsy revealed ascites; hydropericardium; hemorrhages; swollen, pale, irregular livers.	2,86
N. A.	Increase in mortality to certain cancers. Study showed no increase in overall mortality or cancers due to 2,4,5-T use.	—	—	3
Many South Vietnamese and American veterans exposed.	Various maladies alledged due to "Orange" exposure including: birth defects, increased abortion rates, skin disorders, CNS disorders, cancer, liver disorder, etc.	Many exposed.	Various	2,11,21,30,68,76,86

res-

eneral

CONFIDENTIAL

TABLE 3: Summary of Incidents Resulting in Possible Environmental Contamination with 2,3,7,8-TCDD or other Polychlorinated Dibenzo Dioxins (PCDDs)

DATE OF INCIDENT	LOCATION	INCIDENT RESULTING IN ENVIRONMENTAL CONTAMINATION	SOURCE OF CONTAMINANT	CONTAMINANT LEVELS	EXPOSURE ROUTE
1957-1960	United States	Chick Edema Disease. Adulteration of chicken feed with low cost fats to increase caloric value of feed.	Fats pooled from many sources. Upon processing they had to be heated..... residues of commercial-chlorophenols were probably converted to dioxin, the chick edema factor.	N.A.	Ingestion
1957-1972; reported in 1972	Sweden	Railway workers exposed to phenoxyacetic acid herbicides and others during use on the railroads.	2,4,5-T and 2,4-D	N. A.	Dermal, possible inhalation
1962-1970	South Vietnam	Spraying of Agent Orange defoliant to control vegetation during war.	2,4,5-T and 2,4-D contained 2,3,7,8-TCDD as contaminant	2×10^8 kg of 2,4,5-T sprayed on 1.2×10^6 ha; contained 167kg TCDD.	Possible dermal, ingestion, inhalation

NOTE: Many studies have been conducted on the populace of South Vietnam and American veterans. Many are conflicting in their findings and in general the validity of the conclusions reached from these epidemiologic studies maybe questionable.