

# OC PESTICIDES



The invisible killer

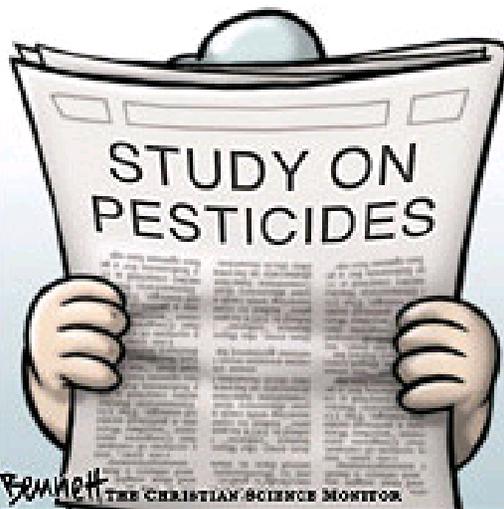
# PESTICIDES

Pesticides - chemicals that are used to kill pests



# Organochlorine (OC) Pesticides 1945-1990

The study found the highest levels of pesticide residue in peaches, apples, pears...



...and spinach.

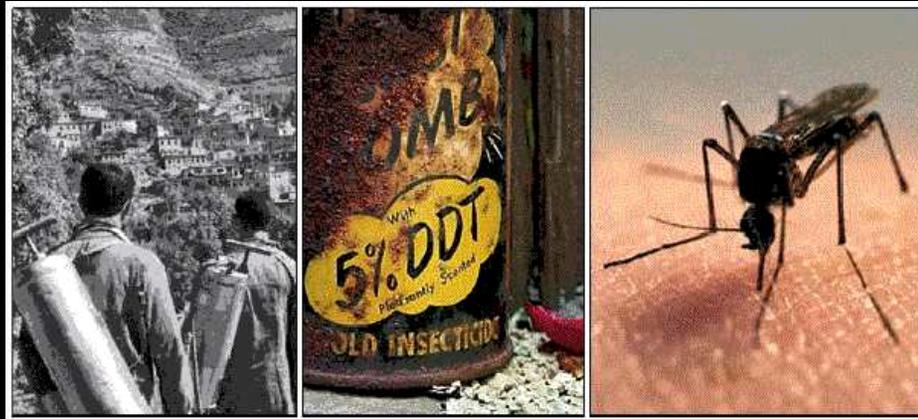


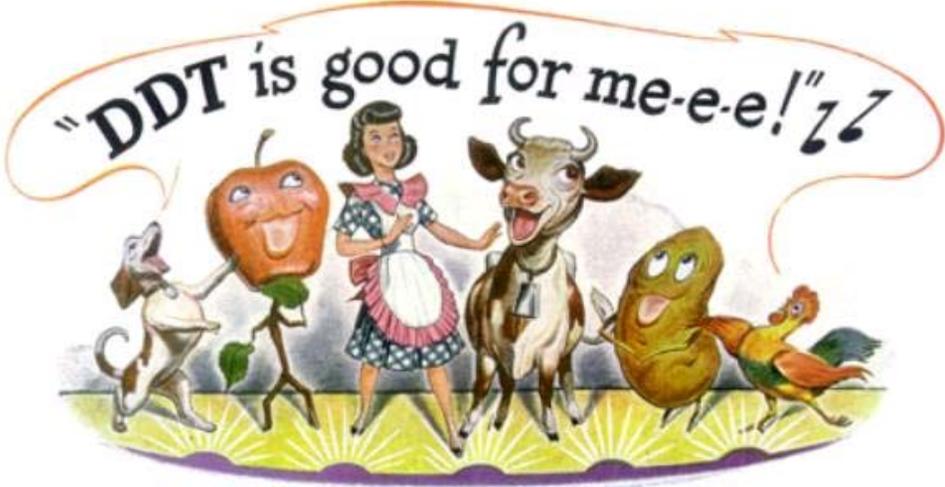
# OC PESTICIDES

- **Non-Soluble**
- **Persists**
- **Bioaccumulate**
- **Toxic**
  - Endocrine disrupters
  - Carcinogens
- **Examples- DDT, Toxaphene, Lindane**

## DDT 1946 - 1972

COUNTRY	YEAR	NO. OF CASES MALARIA
Taiwan	1945	1,000,000 +
Taiwan	1969	9





The great expectations held for DDT have been realized. During 1946, exhaustive scientific tests have shown that, when properly used, DDT kills a host of destructive insect pests, and is a benefactor of all humanity.

one of the country's largest producers of this amazing insecticide. Today, everyone can enjoy added comfort, health and safety through the insect-killing powers of Pennsalt DDT products . . . and DDT is only one of Pennsalt's many chemical products which benefit industry, farm and home.

Pennsalt produces DDT and its products in all standard forms and is now



**GOOD FOR FRUITS**—Bigger apples, juicier fruits that are free from unsightly worms . . . all benefits resulting from DDT dusts and sprays.



**GOOD FOR STEERS**—Beef grows meatier nowadays . . . for it's a scientific fact that—compared to untreated cattle—beef-steers gain up to 50 pounds extra when protected from horn flies and many other pests with DDT insecticides.



**KNOX FOR THE HOME**—helps to make healthier, more comfortable homes . . . protects your family from dangerous insect pests. Use Knox-Out DDT Powders and Sprays as directed . . . then watch the bugs "bite the dust"!



**KNOX FOR DAIRIES**—Up to 20% more milk . . . more butter . . . more cheese . . . tests prove greater milk production when dairy cows are protected from the annoyance of many insects with DDT insecticides like Knox-Out Stock and Bars Spray.



87 Years' Service to Industry • Farm • Home



**GOOD FOR ROW CROPS**—25 more barrels of potatoes per acre . . . actual DDT tests have shown crop increases like this! DDT dusts and sprays help truck farmers pass these gains along to you.



**KNOX FOR INDUSTRY**—Food processing plants, laundries, dry cleaning plants, hotels . . . dozens of industries gain effective bug control, more pleasant work conditions with Pennsalt DDT products.

She longed for a Star Trek-type doctor with a state-of-the-art diagnostic tool. The doctor, with a few computer bleeps, would locate the exact cause of her newly discovered and doctor-baffling skin lesions and assign a painless treatment with no side effects.

## DDT's Effects

- Probable human carcinogen
- Damages the liver
- Temporarily damages the nervous system
- Reduces reproductive success
- Can cause liver cancer
- Damages reproductive system

# Toxaphene 1946-1987



Cotton Leaf Maggot



# Toxophene's Effects

- Aquatic animals: Kills small fish at 0.005 ppm
- Land animals: Dogs fed 4 ppm/day lost weight and had abnormal behavior
- Humans: Stomach poison. Injures kidneys and liver, immune system, adrenal gland, lungs, and nervous system.
- Causes changes in the development of unborn children
- Possible carcinogen

# Water Quality Standard

An allowable limit for a pollutant in the environment.

	Aquatic life (ppb)		Drinking water (ppb)	
Year	1979	2000	1979	2000
Toxaphene	0.005	.0002	5.0	3.0

# PARK POND WATER SAMPLES

## Toxaphene Levels

Are these levels high?

