# The Politics of Food & Agriculture

**Lecture 8**  
*Environmental Politics and Law PLSC 215b/EVST 255b*  
*February 9, 2009*  
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## Central Problems
- Food Availability
- Food Prices
- Species Dependence
- Biological Diversity
- Cultivated Taste
- Overconsumption
- Water Use
- Energy
- Processing
- Packaging
- Waste

## Environmental & Health Problems
- Pesticides
- Fertilizers
- Biological Contaminants
- Worker Safety
- Coloring Agents
- Flavors & Colors: Natural & Artificial
- Packaging Materials
- Processing Effects
- Contamination: Food, Water, Air
- Genetic Modification
Deeper Problems...

- Fractured Law & Regulatory Responsibility
- Private Science
- Trade Secrecy
- Worker Safety
- Narrative Advantage of Producers
- Advertising: Cultivating Taste
- Public Subsidies
- Land Values
- Loss of Farmer Knowledge
- Consumer Intelligence
**Pesticides: Statutory Framework**

- FFDCA
- FIFRA
- FQPA
- SDWA
- RCRA
- CERCLA/Superfund
- TSCA
- HMTA
- NEPA
- ESA
- Wilderness Act
- CAA
- CWA
- OSHA

**PERSISTENCE OF ORGANISM IN MOSQUITO**

- Malaria parasite: 9-12 days
- Encephalitis virus: 10-25 days
- AIDS Virus: 1-2 days

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**MALARIA**

- 300-500 million clinically disabled
- 40% of World’s Population Are At Risk
- Tropical Africa: 90% Incidence & Mortality
- 20th Century Mortality: 100 Million

**Susceptible Populations**

- Children in Endemic Areas
- Epidemics: All age groups affected
- Refugees and Migrant Populations
- Armed Conflict: Heightened Exposure
- Those With Reduced Immunity
Mixing Paris Green By Hand
Malaria Control: Natal, Brazil 1939

DDT and Malaria Control in WW II
Sanitation in the Solomon Islands
Incidence: 3000/1000

Pesticides and the Image of
Sanitation and Health Promotion

• Fumigating Refugees in Europe
  1943-1946
• Hans Dusted With DDT During
  Naples Typhus Epidemic
  1943
• Paul Muller Awarded
  Nobel Prize in Medicine in 1948
  for Discovering DDT
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 insects, pests, and invertebrates. It is benefit to all humanity.

Preston products DDT and are producers of many other products that benefit the public. For more information, please visit our website.
DDT: ENVIRONMENTAL FATE

- PERSISTENCE:
  - SOIL: 10-35+ YEARS
  - ATMOSPHERE: 3 YEARS
  - WATER: 12 YEARS
  - HUMAN TISSUES: 4-6 YEARS

- MOBILITY: GLOBAL CIRCULATION

Atmospheric Concentrations Vary by Latitude:
But why?

DDT in HUMAN TISSUES

- DDT Found in 99% of Human Samples—Past 40 Years
- 1970 DDT LEVELS: 5-10 ppm Milk Fat
- 2000 DDT LEVELS: < 1-2 ppm Milk Fat…Where Banned
- Zimbabwe: 25 ppm Milk Fat in Malaria Control Areas
New York (1971)
Wisconsin (1970)
And Vermont (1969)

**DDT Ban Voted in Wisconsin**
MADISON, Wis., Jan. 8—The Wisconsin Senate today completed legislative action and sent to Gov. Warren B. Knowles a bill that imposes an immediate statewide ban on the sale and use of the pesticide DDT.

**DDT Production Banned in Soviet Union**

**What Do These Differing Regulatory Actions Suggest About the Potential for Uniformity of Regulation (Leveling the Playing Field)?**

**Soviet Ban in 1970**


**British Support Continued DDT Use**


**British Panel Finds No Evidence of DDT Peril**

LONDON, Dec. 17 — An official report published today recommended that some uses of DDT and other pesticides in agriculture, industry and the household be curtailed. Nevertheless, it found no evidence that such "persistent organochlorine pesticides" had adverse effects on man and said there was no cause to prevent for their withdrawal.

Presence of persistent pesticides in the environment even at low concentrations should be reduced. Its recommendations included the following: avoid use of pesticides that can be carried by wildlife to wildlife of pesticide resistant in the environment. The United States Department of Health, Education and Welfare has recommended that almost all sales of DDT be halted in two years. It has taken major steps to ban the use of the pesticide by 50 per cent. Sweden will ban it next year.

**DDT Banned in U.S. Almost Totally, Effective Dec. 31**

Three Crops Affected Mr. Ruckelshaus's order is effective Dec. 31, 1972. In the meantime, he explained, growers of cotton, peanuts and soybeans — the three crops that account for almost the total domestic use of DDT—will get instruction in the handling of a substitute pesticide, methyl parathion. This substitute is toxic, but unlike DDT, it degrades quickly.

**New York Times**
June 16, 1972 Pg. 45.
Dicofol: NY Times: Mar 20, 1984

E.P.A. Considers a Ban On Pesticide Using DDT

ORLANDO, Fla., March 19—A pesticide popular with citrus and cotton growers and home gardeners is under Federal scrutiny because it contains the banned pesticide DDT.

Official announcement of the "near-term review" of Dicofol by the United States Environmental Protection Agency is expected Wednesday in Washington, sources in the agency said.

The high priority study, described by the sources as "very unusual," could lead to a ban on Dicofol or restrictions on its use.

Dicofol is made from DDT by adding sulfoxine molecules. Rohm and Haas Company produces about two-thirds of the estimated three million pounds of Dicofol used each year in this country. The company makes Dicofol in Italy because the United States does not manufacture DDT, a company spokesman said. An E.P.A. official said samples of Dicofol contain 8 percent to 15 percent DDT.

NY Times: May 23, 1986

By KEITH SCHNEIDER

Speaks In The New York Times

WASHINGTON, May 22 — The Environmental Protection Agency today said that it was taking action to reduce the contamination of streams and lakes in the South and West by directing manufacturers to change the formulations of a widely used pesticide containing the outlawed chemical DDT.

About 250 million pounds of the insecticide, Dicofol, is used by farmers in the United States each year. Most of it is sprayed across cotton fields and citrus groves in Florida, Texas, Arkansas and California to control damaging pests.

The environmental agency, which said that 7.2 percent of the current formulation for Dicofol consisted of DDT and other compounds closely related to DDT, ordered manufacturers to reduce that level to one-tenth of 1 percent by Dec. 31, 1986. Manufacturers that do not comply face the loss of their registration licenses, the agency said.

New York Times

August 3, 1999

Methyl Parathion Ban

Announcement by EPA

WASHINGTON, Aug. 29 — The Environmental Protection Agency is announcing voluntary restrictions for methyl parathion, the widely used insecticide that causes severe health problems.

The agency said methyl parathion was not expected to cause cancer, but it said that some people could live with less of it.

Wendy L. Barlow, the director of the agency's Division of Pesticide Use Management, said the restrictions were designed to "reduce the amount of methyl parathion that may be present in the environment and may pose risks to wildlife, agriculture and the public health.

The restrictions include a limit on the amount of methyl parathion that can be used on crops and a ban on its use on certain crops.

The restrictions will go into effect this fall.


DDT, Target of Global Ban, Finds Defenders in Experts on Malaria

By SHEERY GAY STOLBERG

WASHINGTON, Aug. 30 — It has been 27 years since the United States banned the pesticide DDT, and the payoff is undeniable. The parasitic disease, once spread to the brain by insects, came out of the endgame species but this month, the lead role may have shifted. Brown roughs are flourishing in Florida. On the eve of Long Island, the east coast is back.

Dr. E. John R. Tollefson, Harvard School of Public Health and president of the American Society of Tropical Medicine and Hygiene, "That could go up dramatically if we keep the epidemic under control."

Dr. Wirth is among more than 300 medical researchers in 27 countries who are urging the United States to start treating small amounts of the disease with drugs that could be made in Africa.

"We need to start treating the disease with drugs that could be made in Africa," he said.

"Every recognized expert who has written about DDT has recommended that it be used to control malaria."

The experts are urging the United States to restore the potency of DDT and start treating the disease with drugs that could be made in Africa.

“We must take a position based on the science and the data,”

“One of the best tools we have against malaria is indoor residual house spraying. Of the dozen insecticides WHO has approved as safe for house spraying, the most effective is DDT.”

Dr Arata Kochi, Director of WHO’s Global Malaria Programme.

What Does a National Ban Mean in a Global Marketplace?

192 NATION STATES RECOGNIZED BY UN
115 COUNTRIES SUBMITTED DATA TO UN ON POP’S

- 47 BAN ALDRIN
- 47 BAN CHLORDANE
- 51 BAN DIELDRIN
- 51 BAN DDT
- 45 BAN ENDRIN
- 47 BAN HEPTACHLOR
- 34 BAN HCB
- 39 BAN MIREX
- 42 BAN TOXAPHENE
- NO NATION BANS DIOXINS AND FURANS

Persistent Organic Pollutant Treaty (POPS)
23 October 2003 - Entry into force of Protocol

1. 90 Nations including US and EU have signed the Treaty
2. Eliminate any discharges, emissions and losses of these 16 POPs.
   - 11 pesticides—DDT, aldrin, dieldrin, lindane, hexachlorobenzene and heptachlor
   - 2 industrial chemicals (hexabromobiphenyl and PCBs) and
   - 3 by-products/contaminants—dioxins/furans, hexachlorobenzene and polyaromatic hydrocarbons.

Pure Food and Drug Act of 1906

January 1906, Upton Sinclair published The Jungle
Described filthy slaughtering conditions in the Chicago stockyards.

Pure Food and Drug Act was passed on June 30, 1906.
- The act forbade foreign and interstate commerce in “adulterated” or “fraudulently labeled” food and drugs.
- Products could now be seized and condemned,
- Offending persons could be fined and jailed.
- Fresh, canned or frozen food shipped in interstate commerce must be “pure and wholesome”.

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### Insecticide Act 1910

- Prohibited the sale of fraudulently labeled pesticides, and set standards for their purity.
- Designed to protect farmers from dangerous or impotent pesticides.

### Federal Food Drug and Cosmetic Act 1938
- FDA authorized to set limits for chemicals in foods
- Tolerances were established for some pesticides
- Color required to be added to pesticides to prevent their being mistaken for flour or sugar.
- **Miller Amendment 1954:**
  - Required tolerances for all pesticides
- **Delaney Amendment 1958:**
  - Zero tolerance for carcinogens in foods
  - Pesticides Defined as Food Additives if Concentration
  - Raw to Processed Food: Led to Ban of Parent Chem.
  - E.g. apple juice and Alar.

### FIFRA 1947
**Federal Insecticide, Fungicide & Rodenticide Act**
- Defined Pesticides as “economic poisons” (benefit/risk balancing)
- Required Product USDA Registration prior to interstate/int’l trade
- Extended Regulation to Herbicides and Rodenticides
- Required Warning Labels to protect uses, public, non-target species
- Required Ingredient List other than Inerts
- No USDA authority to remove hazardous chemicals from market

### 1964 FIFRA Amendments
- Rachel Carson’s Silent Spring Published in 1962
- Required Signal Words: Caution, Warning, Hazard
- USDA Secretary Given Authority to Remove Pesticides From Market based upon “imminent hazard to public”
**EPA Created in 1970:**

- Given Responsibility to Manage Pesticides
- Consolidated Unit in Other Federal Agencies
- USDA Staff Moved to EPA

**Federal Environmental Pesticide Control Act of 1972**

- Amended FIFRA: New Standard for Registration…
- “No Unreasonable Adverse Effects on Environment”
- General vs. Restricted Use Categories Created
- Intrastate Sales of Pesticides Regulated

**FIFRA Amendments:**

1975:
- Sec. of Agric. must be notified of pending cancellations
- Consideration of the economic effects of regulations
- Conditional Registration Allowed Absent Full Data

1975: Review of Older Pesticides
- 1988 Congress mandated a 9 year review deadline
- Costs of Registration Responsibility of Manufacturer

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**Fractured Science, Fractured Law**

- EPA, FDA, USDA
  - EPA: Registration and Tolerance Setting Responsibility
  - FDA: Enforcement of Limits in Domestic & Imported Foods
  - USDA: Enforcement in Meat and Poultry, Econ Benefits Assess.
- Different Jurisdictions, Data Sets, Budgets, Political Territories, & Cultural Predispositions to Worry About Different Risks….
- Effect: Confusion and Delay in Implementation
  - Bureaucratic Inertia and Momentum: Supertanker….