

PESTICIDES: A DOUBLE-EDGED SWORD

A. Need for Pesticides

1. Extent of Crop Loss
2. Vulnerability of Monocultures
3. Extent of Use
 - a) world-wide
 - b) in US

B. Advantages to Pesticide Use

1. Financially Effective
2. Biologically Effective
3. Safety
4. Decrease Food Prices
5. Influence of Chemical Companies

C. Disadvantages of Pesticides

1. Are Mobile
2. Most are Broad Spectrum – kill good and bad insects
3. Breed Genetic Resistance
4. Biological Magnification – accumulate in living organisms
5. Simplify Ecosystems

D. Classes of Pesticides

1. Chlorinated Hydrocarbons (organochlorides)

ex – DDT, chlordane, kepone, mirex

concentration of DDT in fatty tissues

2. Organophosphates

ex – diazinon, malathion, parathion

3. Carbamates

ex – sevin, zineb, temik

E. Alternative Methods of Pest Control

1. Biological Control

2. Male Sterilization

3. Juvenile Hormones

4. Pheromones

5. IPM: Integrated Pest Management