

Environmental Health: Pest and Solid Waste Management

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PESTS

- ❖ Pest- any organism or microbe that adversely affects human interests
- ❖ Resource competition
 - 35-42% of harvest lost each year to pests
 - \$11 billion/year spent in U.S. due to termite damage

- ❖ Sources of Discomfort
 - Bedbugs
 - Chiggers
 - Knats



- ❖ Sources of Disease Transmission
 - Mosquitos- malaria, yellow fever, dengue fever, encephalitis, West Nile virus



- Cockroaches- allergic reactions, asthma
- Flies- typhoid fever, cholera, dysentery, parasitic worm infections
- Fleas- plague (Black Death)
- Ticks- Rocky Mtn. Spotted fever, Lyme disease
- Lice- Typhus fever, rickets



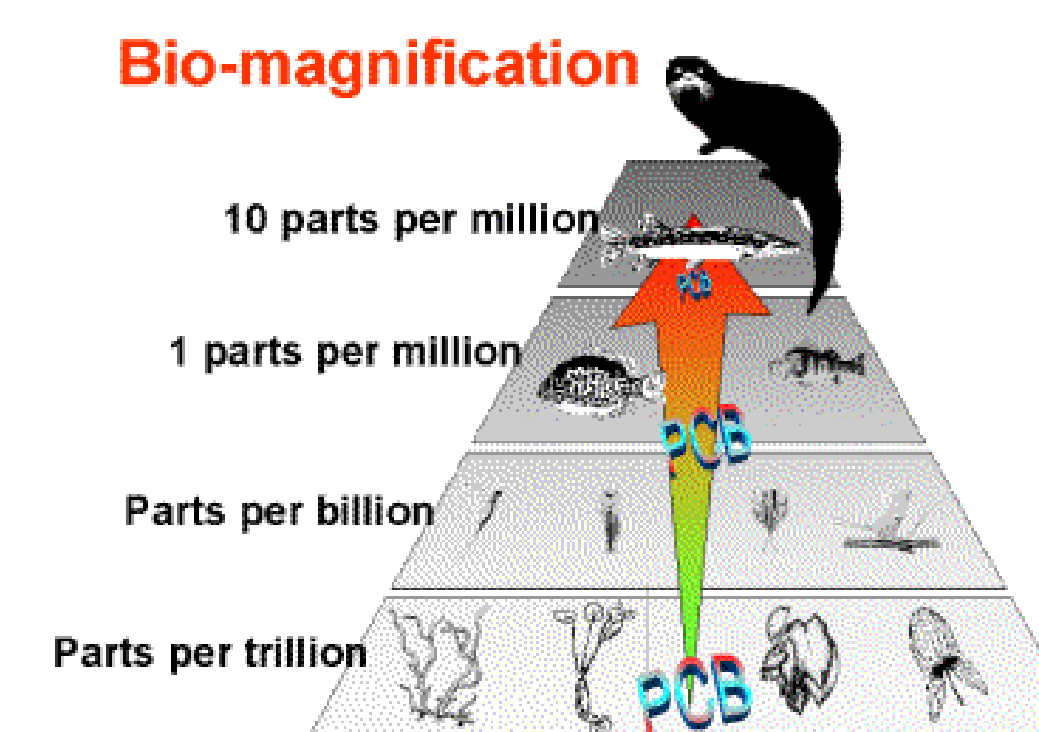
PEST CONTROL

- ❖ Types of pesticides
 - Insecticide-
 - Ingest
 - Inhaled
 - Dermal
 - Herbicide
 - Selective
 - Contact
 - Translocated
 - Rodenticide

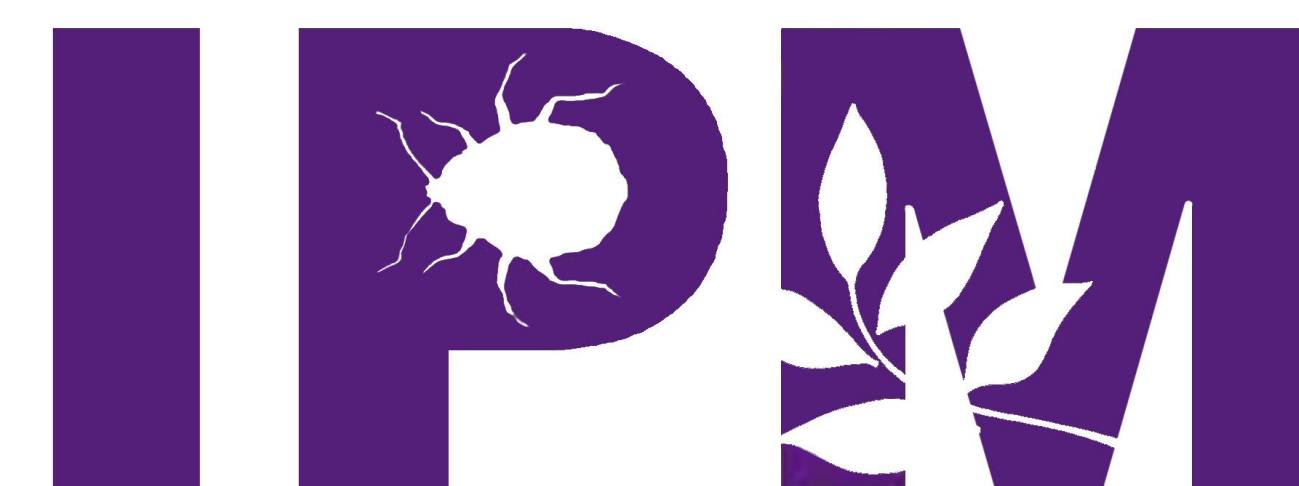


- ❖ Monitoring pesticides
 - United States Department of Agriculture (USDA)
 - Environmental Protection Agency (EPA)
 - Pesticide Data Program (PDP)

- ❖ Environmental Impacts
 - Resistance
 - Contamination
 - Biomagnification
 - Poisoning

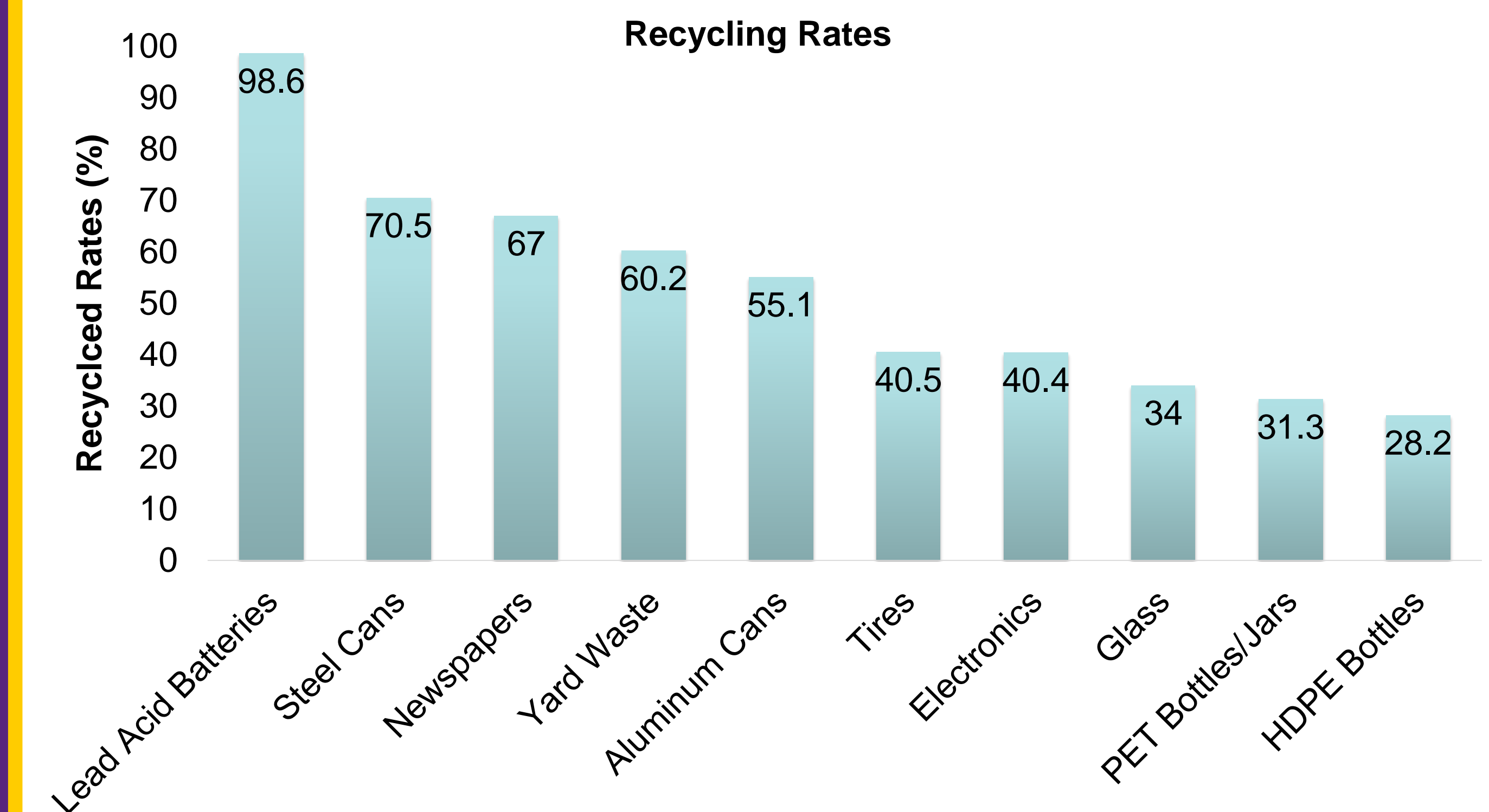


- ❖ Alternatives to pesticides
 - Integrated pest management
 - Insect Growth Regulators
 - Host plant resistance
 - Sanitation

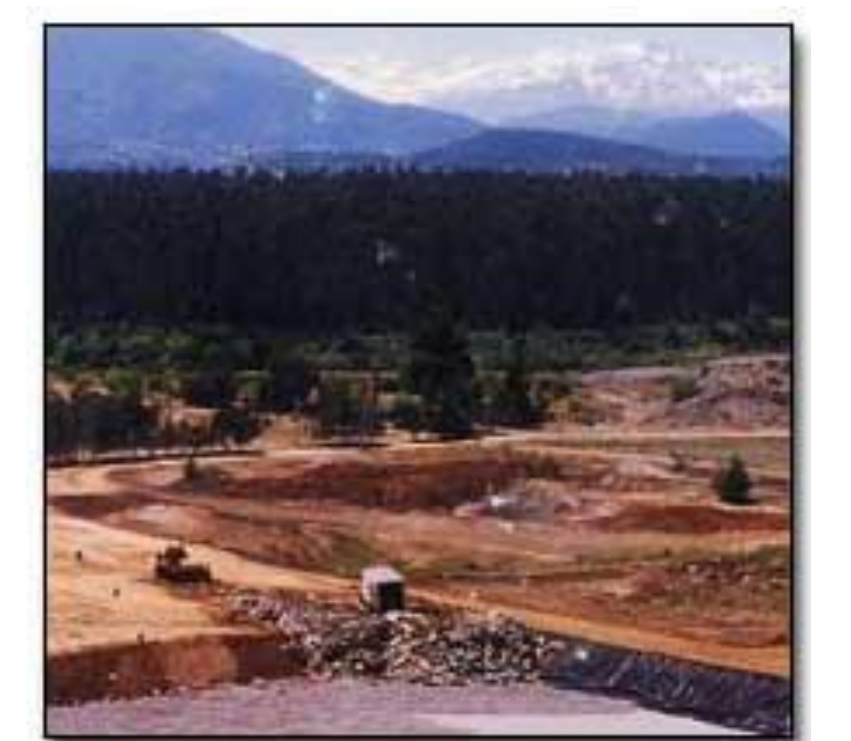


SOLID WASTE

- ❖ 4.5 lbs of refuse/individual/day/year
 - Average of 1.51 lbs of individual waste recycled per person/day
- ❖ Total of 250 million tons of waste from households and businesses/year



- ❖ Improper waste management of garbage increases likelihood of disease by attracting vectors
- ❖ Most municipal solid waste (MSW) managed through sanitary landfills
- ❖ Managing MSWs
 - Recycling
 - Composting
 - Donation and reuse
 - Other



- Converting landfill gas to energy
 - Electric
 - Alternative fuel
 - Processed gas

