Objectives

- List safety precautions that should be employed when using insecticides
- List and discuss the three major types of insecticides that cause problems in animals
- Describe the common signs of poisoning in animals
- Describe the steps that should be taken to treat a poisoned animal
- Discuss the sources of assistance that may be consulted when poisoning occurs
Insecticide

- A substance or preparation used for killing arthropods
  - Insects
    - Flies, fleas, lice
    - Insecticide
  - Arachnids
    - Ticks, mites
    - Acaricide
READ AND FOLLOW THE LABEL

- Precautions to prevent poisoning
  - Follow labeled dose
  - Follow labeled interval
Poisoning of insecticides

- Accidental exposures
  - Spilled chemicals
  - Open chemical containers
  - Using chemical containers for feed buckets

- Using too much
  - Increased labeled dose

- Using more often than label recommends
  - Decrease labeled intervals
Guidelines for proper use

- Use a particular insecticide only for the types of animals the label recommends.

- Accurately calculate and use the correct amount of insecticide per instructions (labeled dose).

- Store insecticides at proper temperature and out of reach of animals.

- Do not repeat use of insecticide more often than label recommends (labeled interval).

- Don’t use insecticides stored over 1 year.
Types of insecticides

- Moderate to high toxicity
  - Organophosphorus compounds
  - Carbamate compounds
- Low toxicity
  - Pyrethrin (pyrethroids) compounds
Organophosphorus compounds

Affects nervous system of body
  - Uncontrollable body functions

Symptoms
  - Increased salivation and defecation
  - Vomiting and stomach pains
  - Muscle stiffness
  - Paralysis
  - Constricted pupils
  - Death
Early sign
- Restlessness
- Trembling

Treatable
- If caught early

Products
- Coumaphos (Co-Ral®)
- Malathion
- Chlorpyrifos (Dursban®) – Withdrawn
- Diazinon – Withdrawn
- Parathion – Withdrawn
Carbamate compounds

- Similar to organophosphorus
- Affects nervous system of body

Symptoms
- Increased salivation and defecation
- Vomiting and stomach pains
- Muscle stiffness
- Paralysis
- Constricted pupils
Products

- Carbaryl (Sevin®)
  - Powder and shampoos for treatment of fleas and ticks
  - Proper use harmless
  - Not for use in puppies or kittens <4 weeks of age
Pyrethrin (pyrethroids) compounds

Symptoms (principally cats)
- Tremors
- Increased salivation
- Ataxia
- Seizures
Chlorinated hydrocarbon compounds

- Affects Central Nervous System (brain and spinal cord)
- Symptoms
  - Trembling and shivering
  - Excitement/nervousness/convulsions
  - Loss of consciousness
  - Dilated pupils
  - Death
- Discontinued
Discontinued products

- Methoxychlor – Withdrawn
- Lindane – Withdrawn
- Toxaphene – Withdrawn
- Dieldrin – Withdrawn
Poisoning

- If poisoning is suspected
  - Handle animal carefully to avoid injury
  - Wash animal with water
  - Treatment
    - Antidote or atropine – blocks effects
  - Separate from other animals
  - Keep in quiet place
  - Remove insecticide source
Assistance

- Local Poison Information Centers
  - Inside covers of telephone directories
- State Poison Center