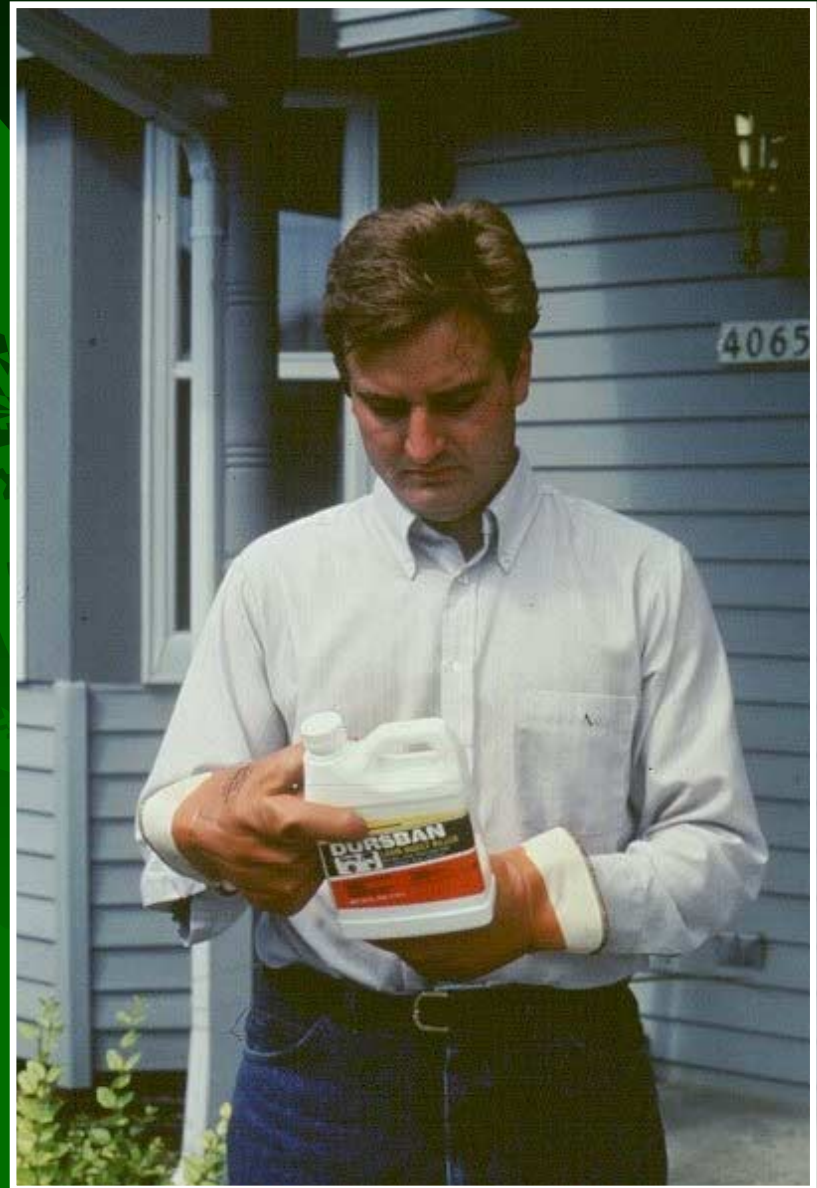


# Ornamental Pest Management (Category 3B)

## Pest Management Techniques

### Chapter 2

**Pesticides are commonly used for controlling pests but they are not the only tool.**



# Pest Management Tactics

- ❖ Short term suppression
  - Pesticide application
- ❖ Long term maintenance of pest levels
  - Resistance
  - Environmental modifications
  - Cultural practices
  - Biological controls
    - ex. Japanese beetle management



# Example: Japanese beetle management.



# Host



**Phone Call**

**Message**

**Plant susceptible to  
pest attack.**

# Plant Resistance



- ❖ Influence of overall plant health
  - Plant selection
  - Cultural care
  - Environmental modification

# Plant Resistance



- ❖ Genetics
  - Species
    - cultivars
    - varieties



**London plane tree and sycamore vary in their anthracnose susceptibility.**

# Cultural Controls



- ❖ Irrigation
- ❖ Drainage
- ❖ Soil fertility
- ❖ Soil aeration
- ❖ Shade
- ❖ Thinning
- ❖ Winter protection
- ❖ Enhance water penetration
- ❖ Reduce weed competition
- ❖ Sanitation



**Black spot on roses.**

# Mechanical and Physical Controls

## ❖ Hand Removal

- Egg masses
- Weeds

## ❖ Traps

- Moles



# Mechanical and Physical Control

## ❖ Barriers

- Rodent tree guards
- Gypsy moth

## ❖ Repellants

- Rodents



# Biological Control



**Spider**



**Lacewing**

# Biological Control



**Parasitized caterpillar**

# Biological Controls

- ❖ Encourage existing beneficials
  - Diverse landscapes
  - Reduce pesticide use, select “friendly” pesticides



# Biological Controls

- ❖ Supplement natural enemy populations
  - Insect release
    - predators, parasites
  - Pathogen-based insecticides
    - *Bt*

