

Common Insects and Their Management

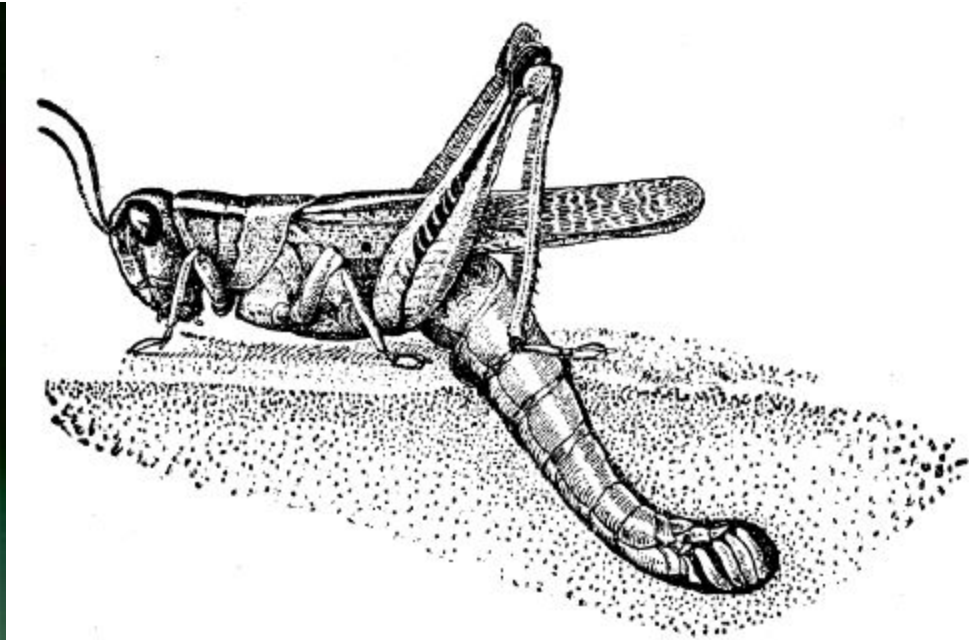
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Grasshoppers

Grasshopper Management

- Natural Enemies
 - Poultry
- Cultural Control
 - Maintain green border
 - Physical barriers
- Chemical Control
 - Baits and sprays containing carbaryl
 - Nolo Bait (*Nosema locustae*) not effective



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Thrips

Thrips Management

- Natural Enemies
 - Minute Pirate Bug, predaceous mites
- Cultural Control
 - Control weeds, high pressure hose, remove old flowers, row covers, reflective mulch, be patient
- Chemical Control
 - Neem, systemics (Orthene, Merit) on non-edible crops



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Elm Leaf Beetle



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Elm Leaf Beetle Management

- Natural Enemies
 - Black Tachnid Fly (marginally effective)
- Cultural Control
 - Tolerate some damage
- Chemical Control
 - Bark banding with carbaryl
 - Bt var. tenebionis
 - Neem
 - Systemics



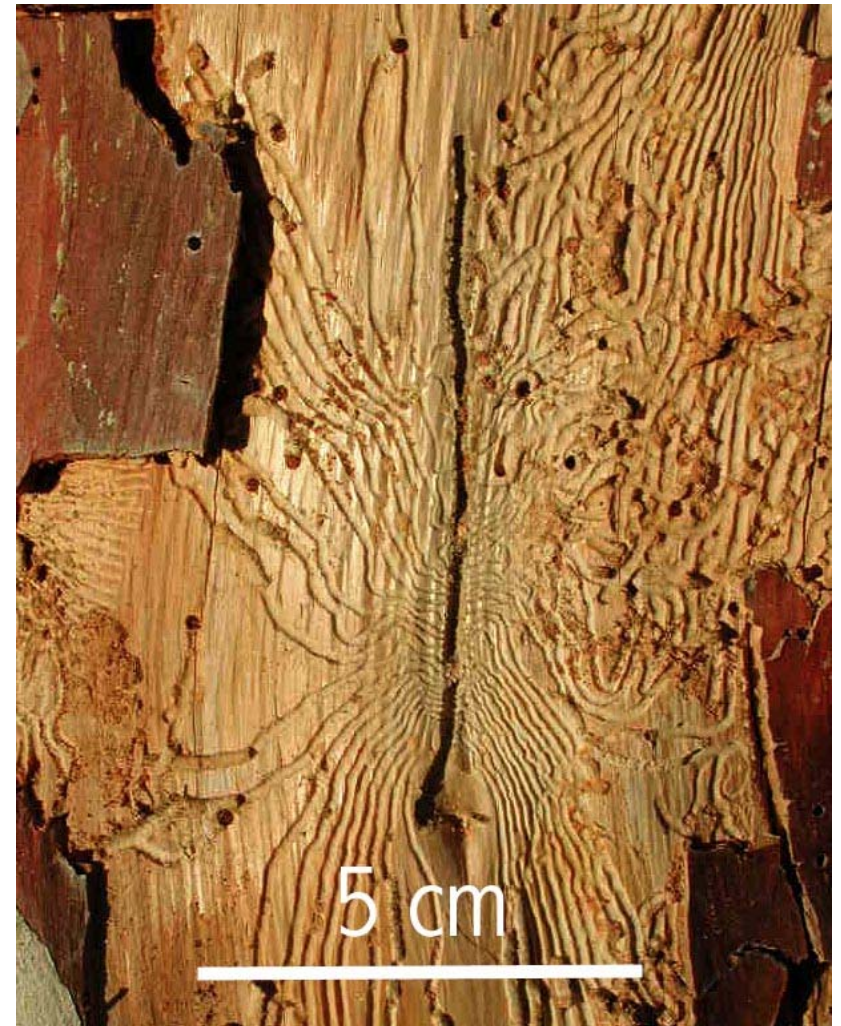
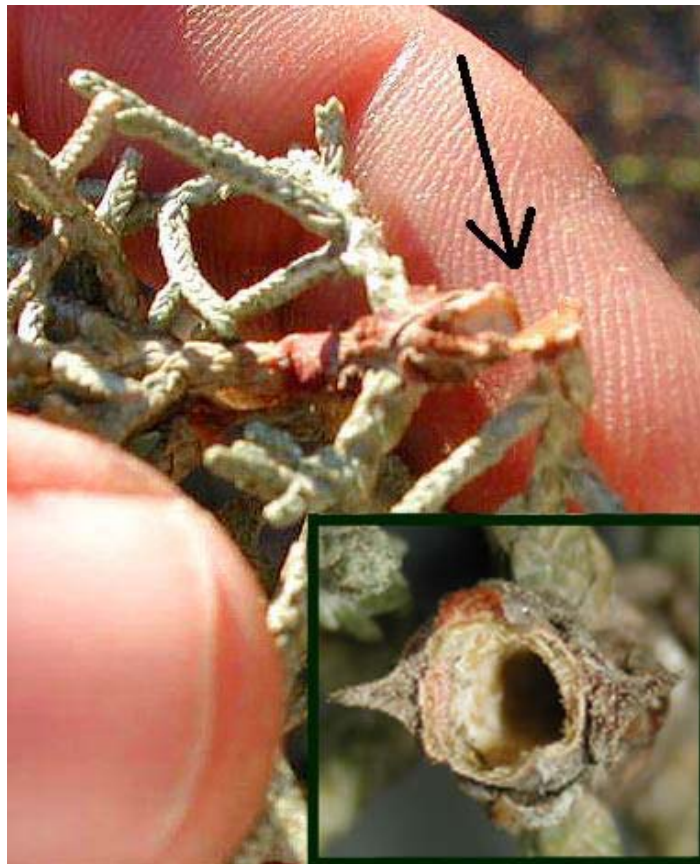
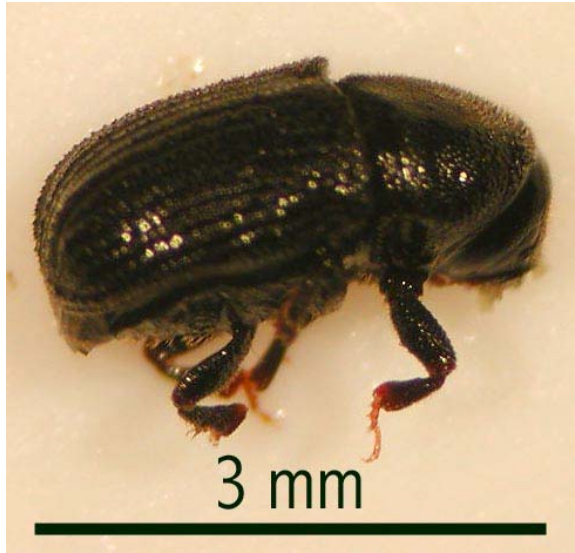
Box Elder Bug



Box Elder Bug Management

- Natural Enemies
 - None known
- Cultural Control
 - Eliminate host trees
 - Screen windows, caulk, weatherstrip
- Chemical Control
 - Not recommended-nuisance insect

Cypress Bark Beetle



Cypress Bark Beetle Management

- Natural Enemies
 - ???
- Cultural Control
 - Irrigate susceptible species to maintain vigor
- Chemical Control
 - Trunk sprays containing carbaryl

Pitch Moth



Pitch Moth Management

- Natural Enemies
 - None known
- Cultural Control
 - Irrigate susceptible species to maintain vigor
 - Physical control
- Chemical Control
 - None

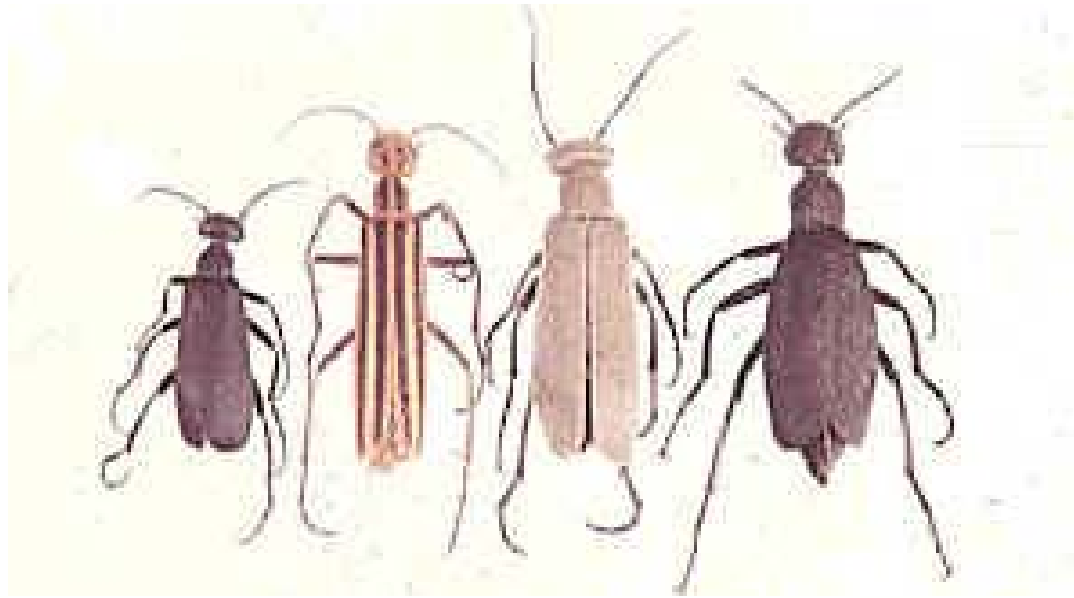


Spider Mite



Spider Mite Management

- Natural Enemies
 - Predatory mites, minute pirate bugs, lacewings, bigeyed bugs
- Cultural Control
 - Avoid dust build up with high pressure hose
- Chemical Control
 - Soaps/oils, miticides in extreme cases



**Blister
Beetles**



Blister Beetle Management

- Natural Enemies
 - None (but they eat grasshopper eggs)
- Cultural Control
 - Physical barriers
- Chemical Control
 - Carbaryl, malathion, stomach poisons



**Agave
Snout
Weevil**

Agave Snout Weevil Management

- Natural Enemies
 - None known
- Cultural Control
 - Remove and destroy infested plants
- Chemical Control
 - Put in mescal bottles



**Flea
Beetles**

Flea Beetle Management

- Natural Enemies
 - Parasitic wasps
- Cultural Control
 - Control weeds
 - Row covers on vegetables
- Chemical Control
 - Carbaryl
 - Malathion
 - Acephate



Corn



Grasshoppers

Grass Hopper Management

- Natural Enemies
 - Birds, Guineas, Chickens
 - *Nosema locustae*
- Cultural Control
 - Physical Barriers (screens, row covers)
- Chemical Control
 - Carbaryl
 - Neem
 - Acephate for ornamentals