

Flower Insects

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Flower Insects and Related Pests

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Ants

- Hosts
 - Many
- Description
 - Red to black in color
 - Three distinct body sections
- Note:
 - Ants drive away predators to protect aphids disrupting biological control. Controlling aphids drives ants away.

Ants

- Damage
 - Make soil mounds
 - Disturb roots
 - Make vector diseases
- Control
 - Drench nests with hot water
 - Use baits to control visible ants
 - Apply insecticide granules to nesting areas





Aphids

- Hosts
 - Many plants, including
 - Chrysanthemum
 - Petunias
- Description
 - Small, green to black sucking insect, with or without wings
 - Over 600 varieties in Utah
 - Reproduce asexually in summer

Aphids

- Damage
 - Curling of new foliage
 - Sticky leaves and dripping honeydew
- Control
 - Green lacewings, lady bird beetles, and other predators
 - Insecticidal soap
 - Most insecticides, including acephate or malathion





Blossom Weevils

- Host
 - Hollyhock
- Description
 - Adult beetle about $\frac{1}{8}$ " long with a long snout
 - Dull, grayish brown in color

Blossom Weevils

- **Damage**
 - Eat blossoms before they open
 - Skeletonize leaves
- **Control**
 - Cut and destroy infested seeds and pods
 - Spray with insecticidal soap
 - Most insecticides, including acephate





Bumble Flower Beetle

- Host
 - Sunflower
 - Strawflower
 - Daylily
- Description
 - Larvae (white grubs) found in manure or compost
 - Adult beetle resembles bumblebee

Bumble Flower Beetle

- **Damage**
 - Chew on some flower petals and bulbs
 - May transmit bacterial diseases
- **Control**
 - Hand pick beetles if numerous
 - Clean up any manure or rotten fruit
 - Chemical control is seldom needed



Cabbage Looper

- Hosts
 - Carnation
 - Chrysanthemum
 - Nasturtium
 - Other flowers
- Description
 - Larvae are pale green with white lines on back and sides
 - Moths are gray brown with silvery spot on forewings

Cabbage Looper

- Damage
 - Feed on leaves or small buds
 - Fecal droppings make flowers unsightly
- Control
 - Wash away or handpick larvae
 - Insecticidal soaps
 - *Bacillus thuringiensis*
 - Pyrethrum and other insecticides



Carpenter Bees

- Host
 - Yucca
 - Roses
 - Raspberries and other pithy plants
- Description
 - Small bees about $\frac{3}{16}$ " long
 - Metallic blue or blue-green

Carpenter Bees

- Damage
 - Burrow into stems and make cells for young
 - Only a problem when they burrow into live tissue
- Control
 - Cover cut stems with wax
 - Prune damaged stems
 - No chemical control recommended

Carpenter Bees



Caterpillars

- Host
 - Many
- Description
 - Larval stage is worm-like with many legs
 - Adults are moths or butterflies

Caterpillars

- Damage
 - Eat leaves and flowers as well as roots and stems
- Control
 - Hand pick larvae
 - *Bacillus thuringiensis*
 - Pyrethrum
 - Many garden insecticides

Caterpillars



Corn Earworm

- Host
 - Geranium
 - Gladiolus
 - Rose
 - Sunflower
 - Many vegetable and field crops
- Description
 - Large, green, brownish, or reddish colored worms
 - Adults are night-flying moths

Corn Earworm

- Damage
 - Eats petals, buds, and occasionally leaves
 - Female lays one egg per host plant
- Control
 - Hand pick larvae
 - *Bacillus thuringiensis*
 - Many garden insecticides



Cutworm

- Host
 - Zinnia
 - Petunia
 - Most other flowers
- Description
 - Smooth, fat, soft caterpillar
 - These creatures are caterpillars that cut and kill plants around the soil line

Cutworm

- Damage
 - Cut plants off at the base
 - Some climb plants and eat leaves
- Control
 - Paper collars that extend into the soil 2” to prevent damage
 - Fall tilling for weed and larval control
 - Insecticide granules on soil
 - Many contact insecticides



Earwig

- Host
 - Many flowers
- Description
 - Long, black and brown insects with pincers on rear end
- Note:
 - Earwigs can be important predators of insect and insect eggs
 - They are not harmful to humans

Earwig

- **Damage**
 - Feed on blossoms and foliage
 - Considerable chewing damage on susceptible crops
- **Control**
 - Use boards or moistened newspaper as traps
 - Chemical baits
 - Insecticidal sprays after dark

Earwig





Fungus Gnats

- Host
 - Most bedding plants or container plants
- Description
 - Small black flying insects that resemble fruit flies

Fungus Gnats

- Damage
 - No damage to plants unless they become very numerous
- Control
 - Dry out soil
 - Insecticides are almost never needed with outdoor plants

Fungus Gnats



Earthworms

- Host
 - Bedding Plants
- Description
 - Large smooth worms that burrow in the soil

Earthworms

- **Damage**
 - Small transplants and their root systems are disturbed or eaten
- **Control**
 - Handpick worms from potted plants or flower beds
 - Water less frequently
 - No chemical control



Flea Beetle

- Host
 - Many
- Description
 - Small brown, black, or dark blue beetles that jump when disturbed
 - Many species attack different plants

Flea Beetle

- Damage
 - Tiny circular holes in leaves
- Control
 - Control weeds that harbor pests
 - Fall tilling
 - Insecticidal soap
 - Most common insecticides



Greenhouse Whitefly

- Host
 - Fuchsia
 - Martha Washington geraniums
 - Lantana
 - Other flowers
- Description
 - Small white butterfly appearing pests

Greenhouse Whitefly

- **Damage**
 - Sticky leaves often grow sooty, black mold
 - Suck plant juices
- **Control**
 - Inspect all plants to avoid introductions from greenhouse
 - Wash undersides of leaves with water or insecticidal soap
 - Sprays containing pyrethrum



Grasshoppers

- Host
 - All plants
- Description
 - Large flying and chewing insect with voracious appetites

Grasshoppers

- Damage
 - Chew leaves, stems, flowers and fruits
- Control
 - Spray pest when they are young
 - Poultry
 - *Nosema locustae*





Lace Bugs

- Host
 - Sunflower
 - Chrysanthemum
 - Asters
 - Scabiosa
 - Others
- Description
 - Tiny, patterned insect that sucks plant juices

Lace Bugs

- **Damage**
 - Yellow, stippled leaves
 - Undersides of leaves are dirty
- **Control**
 - Wash leaves with a strong stream of water
 - Use insecticidal soap
 - Most common garden insecticides



Courtesy of S.C. White
Kansas Dept. Of Agriculture

Leafhoppers

- Host
 - Ivy
 - Dahlia
 - Others
- Description
 - Small, active white or green or brown insects about $\frac{1}{8}$ " long

Leafhoppers

- **Damage**
 - Stripped foliage that lacks chlorophyll
 - Gray-green dirty foliage
- **Control**
 - Wash leaves to remove pests and residue
 - Insecticides or soaps applied to undersides of leaves



Leafminers

- Host
 - Columbine
 - Chrysanthemum
 - Delphinium
 - Other flowers
- Description
 - Small, light colored larvae
 - Many different insects are leafminers, including larvae of flies, moths, beetles, and wasps

Leafminers

- **Damage**
 - Serpentine pattern in leaves
 - Blotchy pattern in the leaves
- **Control**
 - Hand pick egg masses or infested leaves
 - Insecticide control not recommended
 - Heavily parasitized by other insects



Mealybugs

- Host
 - Fuchsia
 - Lantana
 - Others
- Description
 - Small, non-mobile insects covered with waxy threads
- Note:
 - Introduced on greenhouse plants

Mealybugs

- **Damage**
 - Suck plant sap
 - Encourage sooty mold growth
 - White cottony tufts on leaves and stems
- **Control**
 - Hand pick small infestations
 - Insecticidal soaps
 - Summer weight oil
 - Spot treat with alcohol



Narcissus Bulb Fly

- Host
 - Narcissus
 - Amaryllis
- Description
 - Adult is similar in size and appearance to small bumble bee
 - Large maggot $1/2 - 3/4$ " long

Narcissus Bulb Fly

- Damage
 - Plants grow poorly or not at all
 - Bulbs eaten or large tunnels inside bulbs
- Control
 - Discard affected plants
 - Chemical control is usually not effective

Narcissus Bulb Fly



Root Weevils

- Hosts
 - Columbine
 - Peony
 - Sedum
 - Many others
- Description
 - Black, brown, or gray beetles with a long snout

Root Weevils

- **Damage**
 - Notched leaves that appear to have been trimmed by pinking shears
 - Larvae eat roots
- **Control**
 - Fall tilling
 - Parasitic nematodes
 - Acephate (Orthene)
 - Bendiocarb (Lilly Miller rose and rhododendron dust)





Soft Scale

- Host
 - Poinsettia
 - Ferns
 - Other greenhouse plants that are used out of doors
- Description
 - Small, sucking, flat brown insects about $\frac{3}{16}$ " long, covered with a waxy coating and do not move
 - Often mistaken as part of the plant

Soft Scale

- **Damage**
 - Sugary secretions make plants sticky, allowing black, sooty mold to grow
 - Removal of plant sap
- **Control**
 - Remove physically
 - Insecticidal soap or alcohol wipes
 - Systemic insecticides including acephate or Di-Syston



Spittlebug

- Host
 - Daisy
 - Chrysanthemum
 - Many others
- Description
 - Insects resemble large leafhoppers
 - Most diagnostic feature is the froth or spittle covering insect

Spittlebug

- **Damage**
 - Sucking insects
 - Very little damage unless numerous
 - Plants may be distorted or small
- **Control**
 - Wash off with strong stream of water or insecticidal soap
 - Most garden chemicals are effective but seldom necessary



Sunflower Stem Weevil

- Host
 - Sunflower
- Description

Sunflower Stem Weevil

- Damage
 - Feeds on sunflower stems
- Control
 - None recommended



Courtesy of S. C. White
Kansas Dept. Of Agriculture

Thrips

- Host
 - Gladiolus
 - Chrysanthemums
 - Many other flowers
- Description
 - Tiny $\frac{1}{20}$ " long slender insects that move quickly
 - Usually hide in buds

Thrips

- **Damage**
 - Petals and leaves turn brown or gray
 - Sandpapered appearance from rasping/sucking/feeding damage
- **Control**
 - Hard to control
 - Insecticidal soap
 - Systemic insecticides
 - Lysol treatment for corms



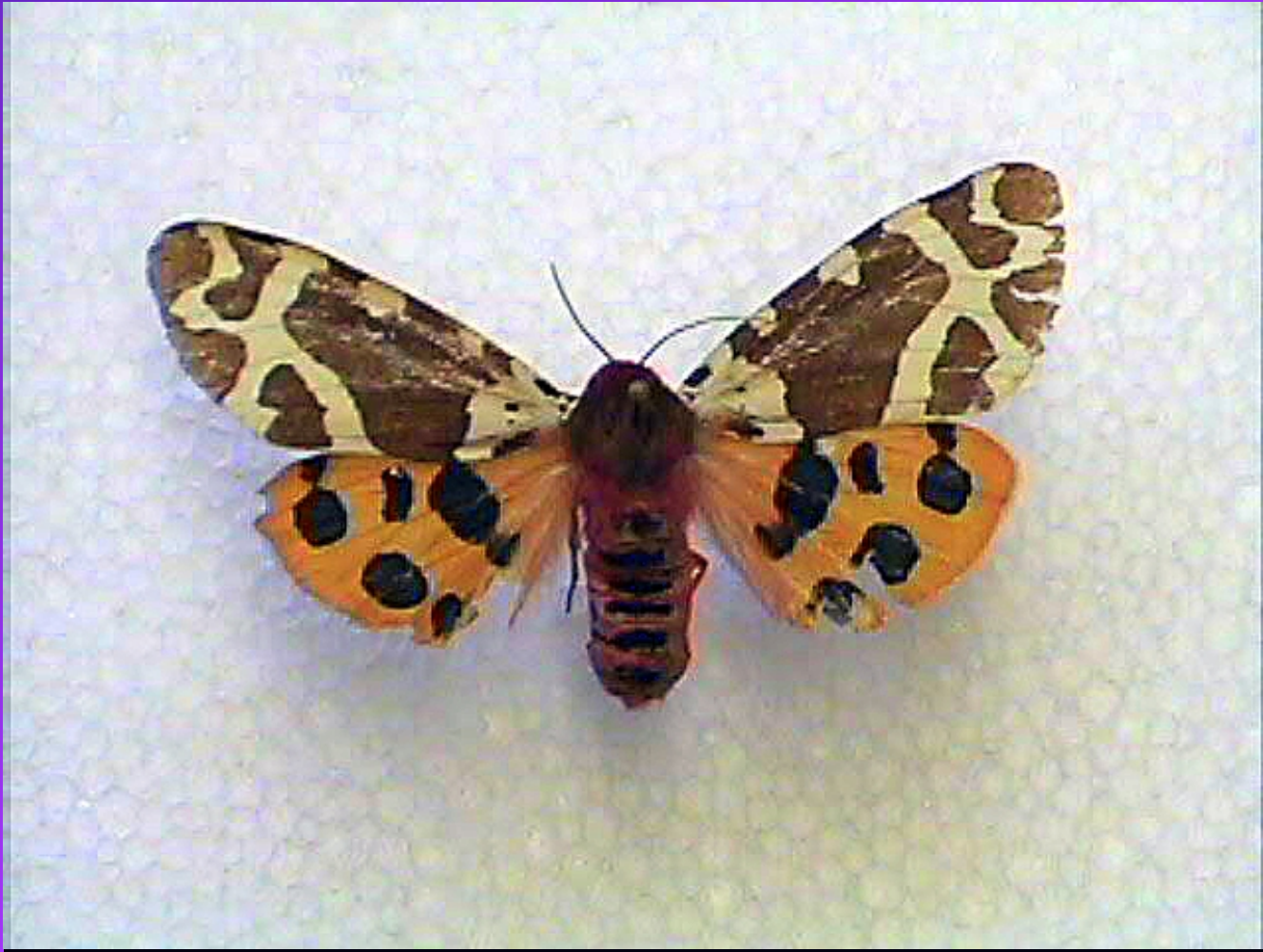


Tiger Moths

- Host
 - Petunia
- Description
 - Brown to orange butterfly-like insects

Tiger Moths

- Damage
- Control

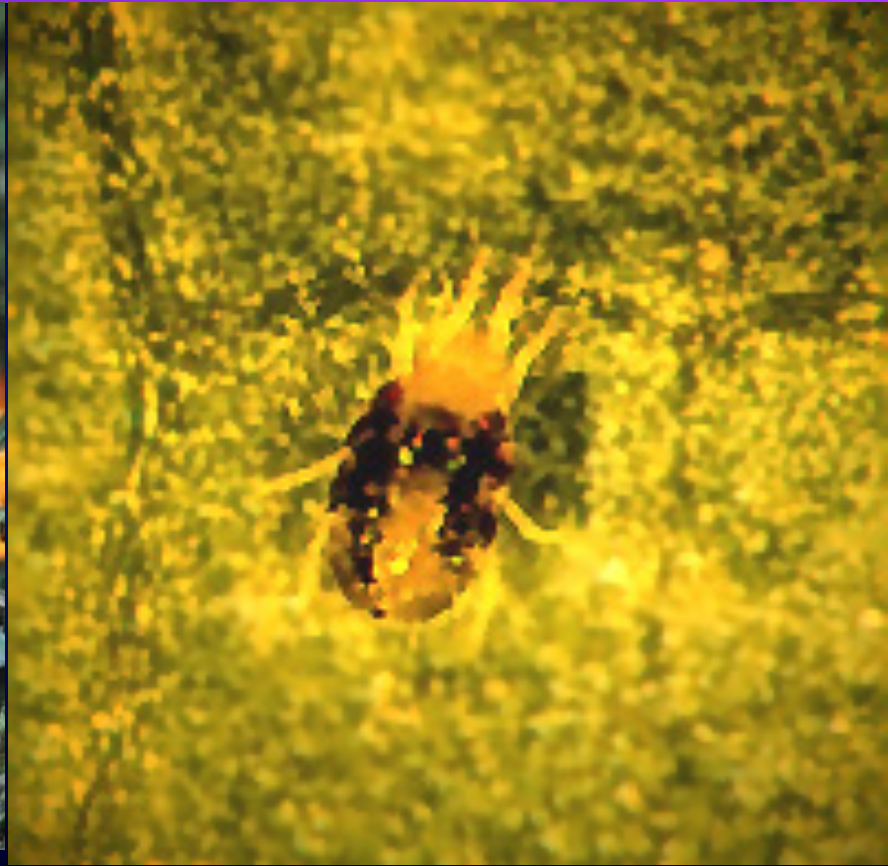


Two Spotted Spider Mite

- Host
 - Hollyhock
 - Marigold
 - Many Others
- Description
 - Small brown spider mite with two distinctive black spots

Two Spotted Spider Mite

- **Damage**
 - Gray, dirty appearance
 - Dried leaves
 - Webbing
- **Control**
 - Wash undersides of leaves
 - Insecticidal soap
 - Kelthane
 - Vendex





Tobacco Budworm

- Host
 - Petunia
 - Geranium
 - Nicotiana
 - Many others
- Description
 - Highly variable caterpillars ranging from light green to red or black
 - Often mimic flower color

Tobacco Budworm

- **Damage**
 - Buds and blossoms destroyed
 - Holes in leaves
 - Sticky leaves
- **Control**
 - Handpick larvae
 - Remove and destroy infested plants in fall
 - *Bacillus thuringiensis*
 - Acephate or other systemics





Other Flower Pests

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Birds

- Hosts
 - Some flowers
 - Decorative fruits
 - Many other plants
- Description
 - Quail, robin, starling, pigeon, sparrow and others

Birds

- **Damage**
 - Most damage to ripening fruit
 - Eat holes in fruit causing fruit to spoil
- **Control**
 - Netting over trees
 - Scarecrows in trees



Bulb Mite

- Hosts
 - Iris
 - Tulip
 - Other bulbs
- Description
 - Small, white, spider mites
- Note:
 - This is an infrequent problem

Bulb Mite

- Damage
 - Destroy developing bulbs
 - Allow pathogenic fungi to invade
- Control
 - Soil fumigation
 - Clean bulbs before storage



Rodents

- Hosts
 - Tulip and other bulbs except daffodils
- Description
 - Mice, gophers, squirrels, and voles
 - Tunnels or burrows are usually more visible than the animals

Rodents

- **Damage**
 - Poor growth of above-ground portion of the plant
 - No growth if bulb or seed is eaten before emergence
- **Control**
 - Plant bulbs under chicken wire mesh or in wire baskets
 - Cats or traps
 - Gas cartridges or baits



Rodents

- Hosts
 - Many plants
- Description
 - Squirrels and rabbits

Rodents

- Damage
 - Tops of plants are chewed away
- Control
 - Fences
 - Repellants
 - Live animal traps

Gopher Mounds



Gophers and Mice





Slugs and Snails

- Hosts
 - Most Plants
- Description
 - Slimy, soft-bodied mollusks
 - Snails have hard shell and soft bodies

Slugs and Snails

- **Damage**
 - Holes chewed in leaves
 - Small seedlings eaten off
- **Control**
 - Avoid excessive watering
 - Hand picking or traps
 - Slug and snail baits with metaldehyde









Diatomaceous Earth



Crushed Glass



Cinders



- Salt is an effective slug and snail killer
- Do not use it in Utah
- Use spray ammonia instead



Slug and Snail Bait



Beer, Yeast and Water





- To avoid the PG-13 Rating we could not show the third slide

