



Identification and Treatment of Pests in Trees and Shrubs

Tent Caterpillars

- Symptom:** Silken tent on the end of branches visible
- Time:** End of June to the end of August
- Damage:** Complete defoliation of a branch. The silken tent looks unsightly.
- Treatment:** Prune and destroy all affected branches. If spraying with Insecticide, make sure to spray in the LATE evening when the Caterpillars are out of the nest, otherwise, the Insecticide will never reach them.
- Plants Affected:** Locust, Hawthorn, Apples and many other Shade trees.



Eastern Tent Caterpillar

The Bugwood Network
& Forestry Images
www.insectimages.org

Army Worm

- Symptom:** Worms feeding together in groups on your plants.
- Time:** May
- Damage:** Partial defoliation
- Treatment:** Birds are a very good control for the Army Worm.



Army Worm
Center for Urban Ecology
& Sustainability at the
University of Minnesota

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Black Vine Weevil

Symptom: Needles of Yews have moon-shaped holes cut out of their edges

Time: Spring or summer

Damage: None, except a little yellowing

Treatment: Parasitic Nematodes (can be sprayed on when watering)

Plants

Affected: Yews



picture unavailable

Bag Worm

Symptom: Brown, shaggy bags (1.5-2.5") hanging from branches.

Time: Late Summer

Damage: Partial defoliation

Treatment: Pick off the bag by hand. If spraying Insecticide, do it in the late afternoon when insects are feeding.

Plants

Affected: Evergreens and Woody
Ornamentals



Bag Worm
Department of Entomology
at Purdue University

Canker Worm

Symptom: Large sections of young leaves eaten away, leaving only the midribs & veins.

Time: Noticeable in early May.

Damage: While unsightly, no permanent damage occurs

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Treatment: Parasitic wasps will normally keep populations down. Also, use a General-purpose Insecticide.

Plants

Affected: Apples, Oaks, Lindens and Beeches

Cut Worm

Symptom: These little fellows eat off your newly transplanted plant at ground level, leaving the top of the plant lying there on the ground.

Time: Early spring (beginning of June)

Damage: Plant death

Treatment: General-purpose Insecticide. Cultivate the soil in the fall to expose the larva at the top of the soil to allow birds to eat them.

Plants

Affected: Mostly newly planted annuals



Cut Worm
Center for Urban Ecology
& Sustainability at the
University of Minnesota

Flat Head Borer

Symptom: Sawdust at base of tree with sap running from holes in the tree

Time: Late spring

Damage: Tree death if they bore tunnels in the bark all around the tree, thus cutting off nutrient transport from the roots to the rest of the tree.

Treatment: Maintain vigor in the trees to encourage healthy growth (good fertilization, moisture control, etc.); avoid mechanical damage from

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things such as string trimmers or mowers. Determine the direction of the borer's tunnel by sticking a wire in it, then cut out the damaged area of the bark with a knife. Cut it out early before girdling occurs.

Plants

Affected: Many shade trees



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Gypsy Moth

Symptom: Large section of the tree or shrub stripped bare

Time: Summer

Damage: Defoliation. If this happens three years in a row, plant death occurs.

Treatment: Biological control such as Pheromone traps or beneficial insect (nematodes) may help, although there is no really good control for these. Effective Insecticide: Sevin.



Gypsy Moth

Plants

Affected: Shade trees and Ornamental shrubs

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Iris Borer

Symptom: Rotting of Iris Roots observable from the surface, as the roots lie right on ground). Yellowing and death of leaves

Time: Late summer

Damage: Plant death

Treatment: Dig up and destroy infected rhizomes (roots). When you plant new ones, dust the root areas with sulfur. Don't mulch over rhizome (bulb), and don't let a bunch of leaves and grasses grow around it will also control Aphid Populations.



Iris Borer Damage
Purdue Extension

Japanese Beetle

Symptom: Surface of leaves completely eaten away, leaving only a netted appearance.

Time: June

Damage: Defoliation. No permanent damage.

Treatment: Biological or systematic spraying during the infestation period.

Plants

Affected: Roses and Lindens among many other Ornamentals and Trees



Japanese Beetle
Center for Urban Ecology
& Sustainability at the
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May or June Beetle

Symptom: White grubs in flower or shrub beds
Time: Early spring or late fall
Damage: Defoliation, although not as bad as that caused by Japanese Beetles. The damage done to the roots by the grubs is much greater than that done by the beetle itself.
Treatment: Biological or systematic spraying during the infestation period.
Plants
Affected: Water with Biologicals or Insecticides to control grubs



June Beetle
Center for Urban Ecology
& Sustainability at the
University of Minnesota

Lace Bugs

Symptom: Speckled yellow blotches on leaves
Time: Mid-spring to early summer
Damage: Unsightly, but no real damage
Treatment: Maintain the vigor of the plant. If infestation is heavy, spray with generic Insecticide in mid-May.
Plants
Affected: Azaleas, Rhododendrons and many other Ornamental Shrubs and Trees



Symptom of Lace Bug
University of Florida,
Institute of Food &
Agricultural Sciences
Extension

Leaf Miners

Symptom: Like the Flat Head Borer in bark,

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the Leaf Miner tunnels between the upper and lower surfaces of a leaf. The outline of their tunnels is visible on the leaf.

Time: Spring and summer
Damage: Unsightly
Treatment: Biologicals and systemic Insecticides

Plants
Affected: Birch and many Perennials



Leaf Miner
Dr. Richard G. Snyder,
Professor & Vegetable
Specialist
Mississippi State
University Truck
Crops Experiment
Station,
[http://www.msstate.edu/
dept/cmrec](http://www.msstate.edu/dept/cmrec)

Mites (Spidermites)

Symptom: Mottled yellow webs visible in the early morning.
Time: Springtime, when temperatures rise above freezing, until the fall frost.
Damage: If severe enough, plant death
Treatment: Dormant oils and Sulfur
Plants
Affected: Many Shrubs and Evergreens



Spidermite damage
Baldo Villegas
<http://www.sactorose.org>

Scale Insects

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Symptom: Visible on stems and leaves
Time: Hatched in early spring
Damage: Kills plants by sucking the nutrients out.
Treatment: Easiest to control by spraying dormant oil before leaves appear (either late winter or early spring)
Plants
Affected: Euonymus, Dogwoods and many others



Symptom of Scale Insects

Baldo Villegas

<http://www.sactorose.org>

Slugs & Snails

Symptom: Large holes eaten in leaves
Damage: Unsightly
Treatment: Slug bate or beer traps
Plants
Affected: Hostas and many tender perennials



Slug

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Purdue University

<http://ppdl.org/dd/id/slugs.html>

Spittle Bug

Symptom: Appearance of spit-like bubbles on leaves and stems.
Time: Anytime in the summer
Damage: Unsightly, but no real damage occurs

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Treatment: Beneficial Insects or General-purpose Insecticides.

Plants

Affected: Many Perennials and Flowering Shrubs. The Bean Family.

European Saw Fly

Symptom: Sections of the plant will seem to suddenly move (2-3,000 worms have been seen on one plant, and they are startled by your movements, thus the "moving bush"). Branches will be completely stripped

Time: Usually in the second week of May.

Damage: Complete defoliation of an entire bush can happen in less than two days!

Treatment: General-purpose Insecticide

Plants

Affected: Evergreens, especially the Mugho Pine



European Saw Fly
Penn State Extension

Thrips

Symptom: Flowers turn yellow and then turn brown where petals join the stem.

Time: Anytime the flowers are blooming

Damage: No damage occurs to the plant, but the flowers lose their beauty

Treatment: General-purpose Insecticide; natural predators such as Lace



Western Flower Thrip
Dr. Ken MacDonald

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Wings will also control Thrip populations.

www.exosect.com

Aphids

Symptom: Insects visible on soft tissue and stems or on the underside of leaves. New growth will curl.

Time: Anytime throughout the growing season (early spring, late summer).

Damage: Unsightly, but no real damage

Treatment: Spray in dormant season with oil. Most mild Insecticides will control Aphids. Predator insects, such as Lady Bugs and Lace Wings will also control Aphid Populations.

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Plants

Affected: Most

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