# Get acquainted with some insects

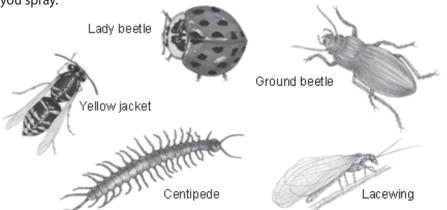
Learn more about your plants and the insects in your yard so you can make knowledgeable choices about pest control. Find out when you need to intervene and when to let the insects be.



Remember that insects are a natural part of your garden. By learning to identify insects you can determine whether an insect is beneficial (a "good bug"), or a pest. Is the insect actually damaging your plants? How much plant damage can you tolerate? Most plants can survive happily even after losing 25% of their leaf surface! Often there is a lag between the appearance of a pest and the arrival of the beneficial insects that will begin to control them. Many plants can literally "outgrow" the insect or disease that afflicts them, especially if the soil is fertile and has been well-prepared.

# **Meet the Beneficials!**

Spraying any pesticide may kill more beneficials than pests. Think twice before you spray.



**Ground beetles** eat slug eggs and babies, plus other soil-dwelling pests.

**Lacewings** and their alligator-like larvae eat aphids, scales, mites, caterpillars and other pests.

**Lady beetle** larvae and adults feed on soft-bodies insects such as aphids, mealybugs, scale insects, and spider mites as well as insect eggs.

Hornets and yellow jackets are effective predators. However, controls may be necessary if they pose a threat to people or pets.

**Centipedes** may look scary, but they feed on slugs and a variety of small insect pests.

# **Beating a Pest Problem**

Use physical controls first. Many pests can be kept away from plants with barriers or traps, or controlled by simply removing infested plant parts. These controls generally have no adverse impact on beneficial garden life, people or the environment.

### Removal

Pests and diseased plant parts can be picked, washed or vacuumed off plants to control infestations. In fact, pulling weeds is a natural pest control!

- Handpicking can be effective for large pests like cabbage loopers, tomato hornworms, slugs and snails.
- Pruning out infestations of tent caterpillars is effective on a small scale. Control leaf miners on beets





Department of Natural Resources and Parks Solid Waste Division













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or chard by picking infected leaves. Put infestations in the garbage or curbside yard waste collection containers - not in home compost piles, which do not get hot enough to destroy pests.

• Washing aphids off plants with a strong spray of water from a hose can reduce damage. Repeated washings may be required, as this process does not kill the aphids. You may also use an insecticidal soap.

# **Traps**

It is possible to trap enough pests like moths and slugs to keep them under control. You can also use traps for monitoring pest numbers to determine when controls may be necessary. Two simple and effective pest traps include:

• Cardboard or burlap wrapped around apple tree trunks in summer and fall will fool coddling moth

larvae into thinking that they have found a safe place to spin their cocoons as they crawl down the tree to pupate. Traps can be peeled away periodically to remove cocoons.

• Slug traps drown slugs in beer or in a mixture of yeast and water.

## **Barriers**

It is often practical to physically keep pests away from plants. Barriers range from 2-inch cardboard "collars" around plants for keeping cut-worms away to 8-foot fences for excluding deer.

- Floating row covers are lightweight fabrics that let light, air and water reach plants, while keeping pests away - they are useful for pests like rust flies on carrots, leaf miners on spinach, and root maggots on cabbage, broccoli and cauliflower.
- Mesh netting keeps birds away from berries and small fruit trees.

• A band of sticky material around tree trunks stops ants from climbing trees and introducing disease-carrying aphids.

# Repellents

A variety of homemade and commercial preparations can be used to keep pests away from plants. Many gardeners claim repellents work, although some are not consistently effective in scientific trials.

- A mixture of raw eggs blended with water produces a taste and odor that offend deer; some gardeners add garlic and hot pepper. Spraying this mix onto plant foliage can repel deer for several weeks, or until it is washed off by rain or sprinklers.
- Garlic oil and extracts are used to repel a variety of insect pests, and also work as fungicides.

# For help identifying particular pests and figuring out how to beat them, visit: http://www.govlink.org/hazwaste/house/yard/problems/goodbugs.cfm

Source material from King County Local Hazardous Waste Management Program, Seattle Public Utilities and the Saving Water Partnership.

This sheet can also be printed off the King County Solid Waste Division's Natural Yard Care web page at www.kingcounty.gov/soils Click on "Documents"

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