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USING HOME REMEDIES TO CONTROL GARDEN PESTS

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Homeowners have a multitude of options for pest control. This guide suggests ways to control garden pests using safe and ordinary household chemicals. The good news is that the ingredients needed can be found in your kitchen or medicine cabinet. Examples include baking soda, beer, vegetable oil, chile peppers, vinegar, lemon juice, garlic, dishwashing soap, and rubbing alcohol. The following is a discussion on how to use some of these homemade remedies to control specific pests.

Aphids

Biology. This soft-bodied insect usually occurs on new shoots, crowns, and undersides of leaves (Figure 1). The aphid life cycle includes eggs, nymphs, and adults. Adults are either wingless or winged. Nymphs are small and similar in shape to adults. Nymphs and adults insert a needlelike structure (stylet) into the plant and remove plant sap. Their feeding can reduce plant growth.

Damage. Symptoms of aphid damage include curled leaves (Figure 2), yellowish spots, and glossy leaves due to the presence of sticky honeydew. A "weeping" tree that drips a sticky substance commonly has an aphid infestation. Black sooty mold (due to a fungus) may develop on leaves. The presence of this mold may reduce photosynthesis, make the plant unattractive, and possibly reduce flowering and yields.

Figure 1. Aphid.

Control. Aphids breathe through spiracles or small breathing holes. Insecticidal soap, available at most garden centers, controls aphids by clogging their breathing holes. An alternative is to mix 1 teaspoon of vegetable oil, 1 teaspoon of dishwashing liquid, and 1 cup of water. Another option is a mix of 3 tablespoons of liquid soap and 1 gallon of water. This makes a 1 percent soap solution.

Figure 2. Aphid damage.

Spray to wet leaves thoroughly for good control. It is very important to thoroughly cover the entire plant, particularly the undersides of leaves, because aphids must come into contact with the soap solution to be affected. To treat large trees, you'll need a pressurized sprayer that can reach the top of the tree.

After a few hours, wash off the oil and soap with a garden hose. If soap solution is left on the leaves of sensitive plants, leaf burning can occur. Repeat the application every few days as necessary.

Caution: When using these remedies, test your mixture on a small number of plants or a small part of a plant to evaluate possible toxic effects. Plants with hairy leaves tend to hold soap solution on their leaf surfaces, where it may burn. The greater the strength of the solution, the hotter the day, and/or the more a plant is water stressed, the greater the likelihood of burning.

Figure 3. Snail.

Figure 4. Slug.

Slugs and snails

Biology. Slugs and snails (Figures 3 and 4) can severely damage plants. They like damp places and usually feed at night, preferring tender new growth and seedlings. Even though these pests are ground dwellers, they will climb plants and can cause damage well above the ground.

Damage. Confirming damage by slugs or snails sometimes is difficult. However, you may see them during early morning or late evening, or you may see their glistening slime trails on hard surfaces.

Control. Numbers of slugs and snails can be reduced by cultivating the soil and removing weeds, debris, and decaying organic matter that provide breeding and/or hiding places. Shaded areas beneath decks or any other structure can be a slug "heaven." Keeping shaded areas weed- and litter-free will reduce slug populations. If your garden is small, remove slugs by hand.

You can trap slugs and snails by placing beer (any brand will do) in shallow pans or flat containers such as jar lids so that the lip is at ground level. Place several containers throughout the garden in open areas. Beer is effective for only about 3 days before it loses attractiveness to slugs and snails.

If you get slug slime on your hands, wash it off using white vinegar and warm water.

Spider mites

Biology. Spider mites are very small pests that are difficult to see without a microscope or magnifying lens. Most damage caused by spider mites is due to the twospotted spider mite, which can be recognized by the two spots on its upper back (Figure 5). Although small, these pests can cause substantial plant damage. They are particularly damaging late in the season or on plants near a dusty road.

Damage. Plants or leaves damaged by spider mites appear off-color. Close inspection reveals leaves with speckled green and light-colored spots (Figure 6). Mites most often are found on the undersides of leaves. Spider mites "webs" are not organized like those of a true spider, and the individual strings are so small that they are difficult to see. An easy way to confirm spider mite damage is to tap the plant while holding it over a sheet of white paper. Look at the small spots on the paper with a magnifying glass to identify twospotted spider mites.

Figure 5. Spider mites.

Figure 6. Spider mite damage.

Control. Mix 3 tablespoons of dishwashing soap with 1 gallon of water. Wet leaves thoroughly for good control. Reapply every 5 or 6 days if necessary. Rubbing alcohol can also be used to treat plants infested with spider mites, aphids, and whiteflies. Apply to affected plants using cotton balls. After a few hours, wash off the soap solution or alcohol with a garden hose. After a few applications, these pests should be eliminated. **See caution under "Aphids."**

Other pests

Earwigs, sowbugs, pillbugs, moles, gophers, ground squirrels, and marmots also cause damage in gardens.

Earwigs can be recognized by the forceps-like pincers on the end of the abdomen (Figure 7). They have chewing mouthparts and feed primarily on decaying organic matter and other insect species, but they also chew holes in many flowers and vegetables (Figure 8). Earwigs are attracted to fish oil, so you can trap them by filling shallow containers with fish oil and burying them in soil up to the edge.

Figure 7. Earwig.

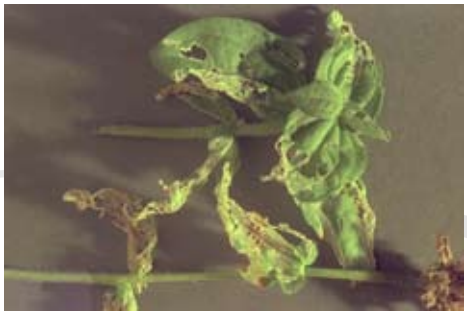

Figure 8. Earwig damage.

When it rains, sowbugs and pillbugs emerge from compost spread around the garden. In the spring, they migrate to houses. Removing debris to discourage them sometimes is all you need to do. These insects can be trapped by placing loosely rolled-up damp paper in the garden. They will hide in the paper; collect the rolls of paper each morning, throw them in the garbage, and replace with new rolls.

You can repel moles, gophers, ground squirrels (Figure 9), and marmots by placing jalapeño peppers within 4 inches of where they are invading. For marmots and deer, you can use castor oil; electric fences also will repel deer. To control ants, saturate cotton balls with peppermint oil or mix the oil in a spray bottle with water (1 part peppermint oil to 10 parts water) and apply where needed. Hot water also works.

Figure 9. Ground squirrel.

Caution: When using homemade sprays, test each spray on a small portion of a plant to make sure there are no adverse affects before applying it to the entire plant. Keep in mind that different plants react differently.

For more information

Controlling Diseases and Aphids on Your Roses, EC 1520
Controlling Moles, EC 987
Deer-Resistant Ornamental Plants, EC 1440
Gardening with Fewer Insecticides: Using Integrated Pest Management, EC 1532
Living with Nuisance Wildlife, EC 1579
Reduce Deer Damage in Your Yard, EC 1557
Slugs, FS 277

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