

Encapsulated fertilizer	Osmocote
Horticultural oil sprays	Mineral oil: Bonide All Seasons Horticultural and Dormant Spray Oil; Monterey Horticultural Oil, Summit Year Round Spray Oil
Insecticidal soaps	Bayer Advanced Natria Insecticidal Soap, Bonide Insecticidal Soap, Miracle-Gro Nature's Care Insecticidal Soap, Garden Safe Insecticidal Soap, Safer Brand Insect Killing Soap
Insecticidal soaps with pyrethrins	Safer Brand Tomato and Vegetable Insect Killer, Safer Brand Yard and Garden Insect Killer
Sticky barrier	Stikem Tree Pest Barrier, Tree Tanglefoot Insect Barrier
Physical Controls	Bug Blaster Row covers (Fast Start Seed Blanket, Easy Gardener Plant and Seed Blanket, Harvest Guard Protective Garden Cover, Turf Starter Seed Germination Blanket, others)
Beneficial insects	Green lacewings, lacewing eggs, lady beetles (ladybugs): available at local garden centers or online

ARE THOSE APHIDS ON YOUR PLANTS?

Aphids are very small insects with soft, pear-shaped bodies, often found on young buds, stems, and the underside of leaves. If you look closely you'll see that they have long legs and antennae. Some have wings. A large infestation can stunt plant growth or distort leaves and flowers.

APHIDS AREN'T ALL BAD!

A few aphids on your plants can actually make your garden healthier because they attract beneficial insects—good bugs that eat pests and pollinate your garden. Many helpful spiders and bugs (like ladybugs, green lacewings, and tiny non-stinging parasitoid wasps) will stay in your garden if there are aphids to eat.

Aphid problems often start early in the spring. As the beneficial insects arrive and reproduce in your garden, the aphid population shrinks.

All aphids make honeydew, a sweet, sticky substance on leaves and stems that attracts ants. Argentine ants love honeydew so much that they protect aphids from their natural enemies. (See the Ant fact sheet in this series for tips on controlling ants.) Honeydew may also cause harmless sooty mold fungus, which makes leaves look black and dirty.

If a large number of aphids seem to be damaging roses and other plants and the beneficials haven't shown up yet, you can reduce the aphid population with a sharp stream of water from your hose, or a spray with horticultural oil or insecticidal soap (see product list). You can also purchase lady beetles (ladybugs) or green lacewings and release them onto your infested plants.



ATTRACTING BENEFICIAL INSECTS TO YOUR GARDEN

- Plant a wide variety of flowering plants. (See the *Planting a Healthy Garden* fact sheet in this series.) Many aphid-eaters, including tiny wasps and lacewings, feed on pollen and nectar.
- Buy beneficial insects like green lacewings or ladybugs (see the *Eco-friendly Products* list on the front page), but wait until aphids have arrived.
- Keep the ladybugs you buy from leaving your garden. Put them in the fridge for 24 hours. In the evening, mist the aphid-infested plants with water, and shake the ladybugs out of their container onto the wet leaves. In the morning, they will wake up gradually with the warmth of the sun, thirsty and hungry—and in ladybug fast-food heaven.

CONTROLLING APHIDS

Aphids (and other plant pests including whiteflies and scale) produce a sweet, sticky substance called honeydew that attracts ants. Seeing a lot of ants on plant stems is a sure sign of a pest infestation. Since ants will actually protect honeydew-producers



Ants are attracted to the honeydew that aphids make.

from natural predators, it's important to keep ants away when you're trying to get rid of aphids.

- Wipe off or prune away large numbers of aphids from leaves and buds.
- Use a strong stream of water to wash off both aphids and honeydew. Do this early in the day so that the plants will dry before hot sun hits and burns the leaves.



A row cover will keep aphids away from plants.

- Paint a sticky barrier, such as Tanglefoot or Stickem (see product list), around the trunks of woody plants, so that ants won't be able to reach aphids on stems and leaves.
- Bring on the lady beetles! (See above.)
- If all else fails, **spray with a horticultural oil spray** to smother the aphids.

PREVENT APHIDS' ARRIVAL

- Use slow-release fertilizers. Some aphids reproduce more quickly on plants with high levels of nitrogen in their leaves and buds. Organic and time-release fertilizers slowly release small amounts of nutrients, so new plant growth doesn't come all at once.
- Avoid excessive pruning in early spring. Pruning encourages tender new growth that attracts aphids.
- Use a row cover to block out aphids and other pests but allow air, light, and water to reach plants.



WWW.OURWATEROURWORLD.ORG

Common home and garden pesticides are found in stormwater runoff, treated wastewater, and in local waterways, sometimes at levels that can harm sensitive aquatic life. **Our Water Our World** is a joint effort by water pollution prevention agencies, participating retail stores, and pesticide distributors and manufacturers—working together to reduce the risks associated with pesticide use.

Our Water Our World fact sheets and store displays educate residents about less-toxic pest management. For the rest of the series of fact sheets, visit **www.OurWaterOurWorld.org**. Look for the *Eco-friendly* tag next to less-toxic products in participating stores and nurseries. See the *Pesticides and Water Quality* fact sheet for information on active ingredients in common pesticides that may cause water quality problems.

Pest control strategies and methods described in this publication are consistent with integrated pest management (IPM) concepts, and are based on scientific studies and tests in actual home and garden settings. Use suggested products according to label directions and dispose of unwanted or leftover pesticides at a household hazardous waste collection facility or event. For more information on pesticide disposal, visit **www.earth911.com**. No endorsement of specific brand name products is intended, nor is criticism implied of similar products that are not mentioned.

For more information, contact:

Bio-Integral Resource Center (BIRC), 510.524.2567, www.birc.org University of California Cooperative Extension Master Gardeners in your area University of California IPM website, www.ipm.ucanr.edu