

GROWING BEAUTIFUL

ROSES

KEEP YOUR ROSES HEALTHY WITH THESE ECO-FRIENDLY PRODUCTS

Anti-transpirant	Cloud Cover, Wilt Pruf
Biofungicide (<i>Bacillus subtilis</i>)	Serenade Garden Disease Control, Bayer Advanced Natria Disease Control
Horticultural Oil	Bonide All Seasons Horticultural and Dormant Spray Oil, Monterey Horticultural Oil, Summit Year Round Spray Oil
Neem Oil	Bonide Neem Oil, Bonide Rose RX 3 in 1, Garden Safe Fungicide 3, Monterey 70% Neem Oil, Natria Neem Oil
Plant-based insecticide	Dr. Earth Final Stop Yard and Garden Insect Killer, Dr. Earth Final Stop Rose and Flower Insect Killer (both in concentrate or ready to use spray)
Potassium Bicarbonate	Monterey Bi-Carb Old Fashioned Fungicide, Organic Labs Organocide Organic Fungicide
Slow Release Fertilizer	Dr. Earth Organic Rose and Flower Fertilizer, E.B. Stone Organics Rose and Flower Food, Osmocote
Soil Probe	Several brands at your local nursery

CHOOSING THE RIGHT ROSE

Do some homework before you choose! Before buying a rose, find out whether it's a good match for your garden. Learn how much sun the rose needs, how well it will tolerate your garden's climate, and whether it is prone to diseases such as rust and powdery mildew.

- No roses are completely disease-free, but many can be grown with minimal care. Choose rose varieties that are disease-resistant and suited to your garden's climate. Some roses will not grow well in areas that are cool in summer and get a lot of fog. Rose varieties with fewer than 30 petals grow better in cool-summer areas.
- Visit a local rose garden during the growing season to see what different kinds of roses look like and to learn about how they grow and what they need to stay healthy.
- Ask local gardeners for suggestions. Contact local garden clubs, rose societies, nurseries, and Master Gardeners for lists of roses they recommend for your area.

You can grow beautiful roses without insecticides and fungicides that can kill beneficial insects and pollute local creeks, rivers, bays, and the ocean. These tips will help you to protect your family's health and the environment while you grow strong, healthy roses with glorious blooms.

- When you buy a new rose, be sure to start with a healthy plant. Either buy bare-root plants (usually sold in December and January), or buy grown-on plants in peat pots. Look for glossy foliage and an evenly moist rootball. Avoid root-bound plants with spindly stems or discolored or spotted leaves. Potted roses can stay in their pots for several months, as long as you give them enough water.



Choose eco-friendly products for your home and garden. Look for this symbol before you buy.

LESS-TOXIC CHEMICAL CONTROLS

If disease or pest problems can't be managed by good garden housekeeping, you may want to use a less-toxic pesticide. Because these products prevent but do not cure disease, treatments must begin before symptoms are widespread. To avoid burning leaves and flowers with chemical spray, water plants the day before you treat them and test a few leaves and petals before spraying the whole plant. Be sure to coat both sides of the leaves.

- Horticultural oils help protect roses from fungal diseases. They create a thin coating that keeps spores from infecting the leaves. Treatment should begin when new leaves appear in spring and must be repeated whenever you see new growth.
- Biofungicides attack fungal diseases like powdery mildew and black spot.
- Neem oil can help prevent powdery mildew, black spot, and rust. Neem oil is toxic to bees, so it is safest to spray it in the evening.

- Plant-based insecticides with garlic extract both kill and repel insect pests such as aphids and rose slugs (sawfly larvae). Apply early in the morning or at dusk, to prevent leaf burn.
- Potassium bicarbonate, similar to common baking soda, can prevent powdery mildew. It must be applied weekly. Or, use this baking soda mixture: 1 tablespoon baking soda, plus 2 tablespoons horticultural oil in 1 gallon of water. Spray when you first detect disease, and repeat when new symptoms appear.
- Sulfur can be effective against black spot, powdery mildew, and rust. Do not use when temperatures are higher than 85F° to avoid burning leaves.



Rose varieties with fewer petals, like the native Rosa californica, grow better in cool summer areas.



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 **Less Toxic • Eco-friendly** tag next to less-toxic products in participating stores and nurseries. See the *Pesticides and Water Pollution* 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.ucdavis.edu