

## Use Horticultural Oil Sprays in Winter to Curb Spring Pests

By Rachel Oppedahl

If you'd like to get a jump on protecting your garden against the inevitable insect invasions of spring, think about using a horticultural oil spray while your plants are still asleep. Using horticultural oils on fruit trees during their dormant season to control overwintering insects has been a common integrated pest management practice for years. But these sprays are also effective in the ornamental garden both before and during the growing season. If applied at the right time and in the right way (always read the label), the sprays can be one important tool in controlling many common soft-bodied garden pests such as mites, aphids, white flies and mealy bugs that might overwinter on your plants. In addition, they can help control some diseases, such as powdery and downy mildew, leaf spot, rust and fungi.

Historically, horticultural oils were called "dormant" oils because they were sprayed on fruit trees only in winter before the formed buds in spring. They tended to be "heavier" oils, with sulfur added. Over time, as refining processes were improved, lighter, sulfur-free sprays were developed that could be used in the ornamental garden in any season because they were less likely to damage plants in leaf or flower. So today, the term "dormant" no longer refers to the type of oil per se, but rather, the season of application.

Horticultural sprays are either plant based or highly refined petroleum products. The sprays work by suffocating the insects and exposed eggs, or disease spores, that are on the plant at the time you spray. Unlike broad-spectrum pesticides, horticultural oils are much safer because they do not leave a long-term toxic residue that can harm beneficial insects. (One exception is neem oil, a natural botanical insecticide made from the seeds of the neem tree, which can be mildly toxic to fish and other aquatic life.)

Here are a few tips for using horticultural oil sprays:

**Use the right oil.** University of California's Integrated Pest Management guidelines suggest that you choose "supreme- or superior-type oils with a minimum unsulfonated residue (UR) of 92 and a minimum percent paraffin (%Cp) of 60%." Greek to you? Just jot it down, take it to the store, and consider this yet another reminder to read the label of any plant spray you are about to buy. Another benefit of reading the product label is that it will often tell you how often you can apply the spray and will mention any plants that might be harmed by its application. Alternatively, you can try a homemade spray developed by scientists at Cornell University: Mix two tablespoons of ultrafine canola oil and one tablespoon of baking soda in a gallon of water.

**Never spray when . . .** it is within 48 hours before or after freezing temperatures; the tree or plant is water stressed; or it is foggy or rainy. Some dormant sprays are better used before the tree/plant forms buds, so again, be sure to read the label for proper timing. Thoroughly water in-ground plants several days before applying oils, and sooner for potted plants, which tend to dry out more quickly.

**Be extra careful with annual crops**—Don't apply a horticultural oil to your vegetable garden unless you read the label carefully. Much more research has been done on the use of these oils on fruit trees and ornamentals than on the edible garden, so check the label first.

Want more information about horticultural oils or University of California Cooperative Extension's Integrated Pest Management Program? Visit <http://ipm.ucanr.edu/PMG/menu.homegarden.html>

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