



## DORMANT SPRAYS FOR EARLY PEST CONTROL

Many times yard and garden problems are noticed too late - long after insects and diseases have attacked and damaged the plant material. But in early Spring (or even late Winter), a gardener can help prevent future outbreaks of many of these pests by using a dormant spray.

A dormant spray is used on a tree or shrub while it is leafless and dormant - live, but not actively growing. This dormant spray is effective because it kills many insects and diseases before they have a chance to multiply and infest new growth.

In general, dormant sprays are effective against scale insects, mites, mealybugs, many types of insect eggs and hibernating caterpillars. The spray kills insects and mites either by suffocation or penetration of the insect's minute breathing tubes. Insect eggs are likely killed by the spray's interference with the exchange of gases (oxygen and carbon dioxide) through the egg's shell.

The most common dormant spray used by home gardeners usually consists of a highly refined petroleum horticultural oil manufactured specifically to manage plant pests. They are paraffinic, degrade rapidly through evaporation, and have very low toxicity to humans and wildlife when used properly. They are relatively safe for plants and the environment as well. They are also relatively non-toxic to the applicator and leave little or no residue. Lime-sulfur can also be used as a dormant spray and sometimes, one can find a dormant spray consisting of a combination of the two; horticultural oil and lime-sulfur. The lime-sulfur has fungicidal action which can be used against rose canker, black spot, mildew, scab, and several other fungus diseases. Some dormant sprays are a combination insecticide-fungicide that will control both select insects and plant diseases.

These sprays should only be used on certain trees and shrubs. So, always take the time to read the label carefully and follow directions. Be sure the pest you are trying to manage and the plant it's on, are listed on the label.

Dormant sprays should be applied before buds swell in the spring and when several frost-free days are predicted. In our area, this means that spraying can generally be done as early as late March. Spray only when the temperature is between 40 and 80 degrees F and when a freeze is not expected within the next 24 hours after application. Apply on a calm, sunny day above 40 degrees F, so the sprayer can work and the plants have a chance to dry before night fall. If using a lime-sulfur spray, take care around buildings since this spray can stain some surfaces. When spraying, cover the plant thoroughly without over-spraying. Excessive deposits of oil may cause damage. Spray all plant parts above ground; twigs, branches, and trunk, just to the point of run-off.

For precise application, use spray equipment which gives you proper control over the spray. A slide-type trombone sprayer is ideal for dormant spraying. This sprayer, with its high pressure, provides a long-range spray that can reach the tops of 20 foot trees. At the same time, the trombone sprayer can be adjusted to spray low-growing shrubs and trees. A compressed air sprayer, with a tank capacity of one to four gallons, is also good for the application of dormant sprays to shrubs.

If you are faced with a big job - such as an orchard or many trees - a power sprayer provides the greatest versatility. Power sprayers, either gasoline, electric, or battery, can reach high into most trees.

When you finish your early Spring spraying, always thoroughly clean the sprayer - especially after using liquid lime-sulfur. Then it will be ready the next time you want to use it,

A little planning and a dormant spray program will offer you rewards in the warmer months ahead as you enjoy your trees and shrubs that may be nearly pest-free. Dormant sprays may not eliminate totally your insect and disease pests, but will reduce their population or incidence to a more manageable and tolerable level.

Horticultural oils can also be used during the growing season. These oils are referred to as “summer oils” for that purpose and the rates for mixing with water are much different, but that’s a topic for another time. Cornell Cooperative Extension of Columbia County has prepared a 6 page fact sheet on Pest Management Options using organic and synthetic pest control products. It also includes a recipe and recommendations for a multi-purpose fruit spray. It sells for 50 cents. Stop in during business hours or send your request, enclosing 50 cents, to Pest Management Options, CCE of Columbia County, 479 Route 66, Hudson, NY 12534 Happy Gardening!

More questions on gardening and pest control can be addressed to the Master Gardener volunteers of Cornell Cooperative Extension of Columbia County by phone at (518) 828-3346 or via email at <[columbia@cornell.edu](mailto:columbia@cornell.edu)>. Consult our web site at <[www.cce.cornell.edu/columbia](http://www.cce.cornell.edu/columbia)> under Help with Gardening Questions for the form on which to submit questions electronically. ###