USING DORMANT SPRAYS

Controlling pests and diseases in the landscape is a year round battle. Even during the cold of winter, insects and diseases can still lurk in the garden ready to wreck havoc as soon as the first warm days of spring appear. Fortunately there are types of sprays which can stop or control these pests before it becomes an overwhelming task for the gardener. These particular sprays are known as dormant sprays

In gardening "dormant" refers to that time of the year when the plants drop their leaves and are not actively growing – which applies principally to deciduous perennials, shrubs and trees. Dormant spraying is an effective preventative measure to control insects and diseases in the home garden. Dormant spraying means that it is applied before leaves appear. Horticultural oils and dormant oils are primarily useful for insect control. .

Dormant sprays are applied to the bare limbs and trunks of the dormant plants. The importance of dormant sprays lies in the fact that they can be made more "active" or concentrated (because there are no leaves or foliage to harm) and consequently can do a superior job of cleaning up existing infection of certain diseases and insects. In the event only one spray per year can be applied, this spray by all odds should be the dormant spray.

What are the different types of dormant spray? There are three main kinds of dormant spray – oils, Lime Sulfur, and Copper based sprays. The oils are used to treat insect pests, such as scale and aphids. Lime Sulfur is very effective against fungal diseases, such as leaf spot and powdery mildew. Never use on evergreens, euonymus, or rhododendrons or apricots trees. Don't use an oil spray within 3 weeks after a Lime Sulfur application Copper based sprays are also effective fungal fighters and are a little more effective against bacterial problems than Lime Sulfur. In cases with known problem plants, two sprays like oil and lime sulfur for example, are often combined to give broad spectrum control of several problems

How do dormant sprays work? Dormant oil works by suffocating the eggs or over wintering stage of insects. Oil is considered a "contact insecticide", which means that only the insects present at the time of application will be killed by the spray. Insects that migrate to the treated plant will not be affected by oil residues. This is good news for beneficial insects such as lady bugs which generally over winter as adults in clusters, in leaf litter or other sheltered areas. Lime Sulfur works by killing the over wintering fungus which cause disease.

Dormant Oil and Lime Sulfur are safe to use on dormant fruit trees, roses or deciduous trees and shrubs. Evergreens may be damaged by the spray due to the reflection of the sun off the oil causing leaf burn. The pests that can be controlled by dormant sprays include mites, aphids, pear psylla, scale, black spot and rose canker. Honeysuckle aphid and euonymous scale are two common garden pests which may be easily remedied by dormant spraying. Dormant oil also is used to control aphids, scale, spider mites, and many other insects by desiccating or smothering eggs and larvae.

When should I apply my dormant spray? The best approach to dormant spray is to schedule 2-3 applications in the winter months, from December to late February or early March, depending on the weather. Towards mid-February, watch carefully for bud swelling so you can determine the proper application rate. Once the buds start swelling, this signifies the end of the dormant season. You will want to apply on a relatively dry day with no rain, so the product can stick without being washed off. The temperatures should remain above freezing for at least 24 hours and the best temperature at the time of application should be about 45 degrees. Avoid spraying on a windy days and always following the directions to safely apply the spray. Do not spray during bloom time as this can knock flower off trees along with beneficial insects, like bees.

Never use dormant sprays too early in the winter. If the spray is applied and temperatures continue to drop during the course of winter, damage can be done to the specimen. If sprayed later in the winter, there is less of a chance of a 'cold snap' and damage.

Are dormant sprays safe for all trees and shrubs? It is not recommended using dormant sprays on all evergreens, including broadleaf evergreens such as rhododendron, azaleas and hollies. Dormant sprays will damamge the color of Colorado blue spruce. Don't use a dormant spray on such deciduous trees and shrubs as beech, butternut, hickory, sugar maple, japanese maple, or walnut. Again make sure you read the label.

How safe are dormant sprays for people? Compared to most pesticides, very safe. This does not mean they are safe to ingest or play around with, but they are much less toxic than sprays that would be applied in the growing season, and are often more effective due to their timing. When applying, you should use the same precautions as with any other chemical.

What is the difference between horticultural oils and dormant sprays? Sometimes dormant oils are referred to as Volk oils. Dormant oils are a heavier type oil and are very useful for smothering and destroying mature insects, insect larvae, and insect egg masses. They should be used as the name implies only during the time the plant is dormant. Spraying dormant oils on plants that have leafed out may cause damage to any leaves or tender growth. Horticultural oils on the other hand are light enough to be used on plants during the summer to control any insects, though they might be less effective in destroying egg masses. Some light horticultural oils were once used as plant 'polishes', but this is not recommended any longer. Some oils are all purpose and can be used a dormant oil, as well as a horticultural oil. But make sure you read the directions first to see if the product can be used without incurring damage.

The Label is Law: With any pesticide, whether organic or chemical, the label on the container is the law. It is always the responsibility of the end user to read and understand all the instructions pertaining to mixing, application and safety precautions. Measure carefully and check your math if you are converting measurements. There is a list of conversions at the end of this tip sheet.

Are there any potential problems? A few things to keep in mind-
Lime Sulfur is notorious for staining non-plant material, such as walkways, patios, roofs, etc. This will leave a green color that is difficult to remove. As stated before---be careful when spraying **evergreen plants**. They won't usually take the hefty concentrations that the deciduous plants will. The label will generally give a recommended rate for evergreen plants…..read the label! It generally isn't a great idea to spray a blue-colored conifer with an oil unless absolutely necessary. The oil will suck the blue color right out of the tree, leaving a very green tree until the new growth emerges next year. Don't spray on a hot or windy day at all, especially the oils. When oil gets hot, it turns into a vapor and drifts. On windy days, chemical gets blown all over. More damage is caused by chemical drift than a lot of people realize, so please do your part to prevent potential damage.

What type of sprayer should I use? There are numerous types of sprayers available on the market for application of pesticides. When dormant spraying, a hose end sprayer is often used due to the sheer volume of mixture used in the application. All the before mentioned ingredients are soluble together and can be applied together If you follow these basic instructions, you will be well ahead of the pest prevention game and your garden will be a haven of rest for you instead of the pests. **Happy gardening!**

Conversions:
1 Tbs. = ½ oz
2 Tbs. = 1 oz
4 Tbs. = 2 oz
8 Tbs. = 4 oz
16 Tbs. = 8 oz
8 oz = 1 cup

Updated: February 2006
Al Krismer Plant Farm
www.krismers.com