Master Gardener Foundation
Grays Harbor & Pacific Counties, Washington

Pest Corner

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The How's about Fungicides, and Insecticidal Soaps

This article was adapted by Cecilia from recent articles by Don Tapio, GH County Extension Agent.

Fungicides

Common Fungicides:

Protectant fungicides are applied to healthy plants to prevent fungal spores from germinating, or penetrating, host tissue. This type of pesticides must be applied before spores have infected the plant. New plant growth after an application may not be protected. Thus, they are usually not effective once the fungus is within plant tissues. Protectants include mancozeb, coppers and chlorothalonil.

Chlorothalonil (trade names are Bravo 500, Daconil 2787, Fung-onil, and Ortho Multi-purpose Fungicide)* is a good general purpose fungicide for many fungal diseases. It is best as a foliar treatment as it breaks down rapidly in the soil. It is one of the longer lasting fungicides so frequent applications are not as critical. It is labeled for use on vegetables fruits, and many ornamentals including shade trees.

Sulfur (trade names include Safer's Garden Fungicide, Sulfur Plant Fungicide, and others that include the word Sulfur) is an organic product. Elemental Sulfur alone is active against powdery mildews, some rusts, leaf blights, and fruit rots. It is also active against mites. It is labeled for fruits, beans, and many ornamentals. Shorter application intervals are needed with sulfur when compared to other products.

Captan is one of the best all-around general purpose fungicides to control a huge variety of plant diseases; but, it is not very good against powdery mildews and rusts. It can be used as a spray, dust, dip, or seed treatment. Captan is labeled for ornamentals, lawns, vegetables, and fruit, but only in mixes with other pesticides. It works well to control leaf spots, blights, and fruit and vegetable rots. It is compatible with many other fungicides but cannot be mixed with oils, lime, or strongly alkaline (soapy-feeling) materials.

Triforine (commonly sold under the trade names of Funginex, and Rose Pride). Funginex* is a systemic fungicide used to control powdery mildew, rusts, and some leaf spots or blights. It is labeled for use on several ornamental plants, and has been used for years for rose diseases.

Fungicide Safety:

As compared with nematicides and insecticides, fungicides have a lower toxicity. However, when using any pesticide, toxic or not, adopt the precautions and recommendations as outlined in the label.

Wear protective clothing, (eye protection, hat, gloves, longsleeved shirts and trousers) while mixing or applying the product.

Spreader Sticker:

Some powder or dust fungicides work better (stay on the plant longer or spread over the leaf surface) if a spreader sticker (such as Sta-Stuk-M)* is mixed with the solution. Liquid fungicide formulations usually include a sticker.

Fungicide Labels:

The label is the law. Label recommendations, warnings, and precautions must be observed always. Do not apply to a plant if its name is not on the label. Do not use more than what is recommended. Always keep it out of the reach of children and animals. Apply products when weather is calm to avoid risk of accidental drift into other unintended areas.

Insecticidal Soaps

Insecticidal Soaps are formulated to have high insect-killing properties. These are mostly nontoxic to humans and biodegrade rapidly. They are made of sodium or potassium salts combined with oil (similar to body soaps). They kill soft-bodied insects by dissolving the outer cell membranes. Soaps are effective on many outdoor and on indoor plant pests where the use of more toxic chemicals is not advised.

Pests controlled by insecticidal soaps include aphids, fleas, flies, mealy bugs, mites, scales, spittlebugs, thrips, whiteflies and some caterpillars among others. Many beneficial insects in our gardens are not harmed by soaps. Bees, wasps, and adult beetles are not affected. However, soaps will kill the larval stage of beneficial insects (as in ladybird beetles and lacewings), but not kill the adults. Apply IPM approach, and become aware of the looks and presence of larval-stage beneficial insects in your garden.

Insecticidal soaps are only effective when sprayed directly on the pests. Good coverage is essential. These soaps only work when wet; repeat application as new pests arrives or hatches. There is no residual activity after it dries. Spraying in the evening or early morning hours will prevent the application from drying out too fast. Repeat spraying as needed.

Soap can damage certain plants. Follow the label directions. Do not apply on plants under stress. One way to avoid plant damage is to spray, let the soap dry, and then rinse it off with a spray of water.

Avoid spraying plants with homemade recipes that include detergents and/or soaps used for clothing, dishes, bathing, house cleaning, etc.

*** The mention of trade brands is not intended to recommend and/or promote one brand over another, or influence consumers. Brand names included in these articles are for educational purposes only.**