

Managing Insects Using Superior or Horticultural Oil



Superior oil or horticultural sprays for managing insects have been used for a hundred years or more, and is still one of the best and safest insecticides. The overall quality of oil has improved over many years producing a product which gives maximum insect kill and minimal plant injury. Currently available superior oil is now sufficiently purified so that it may be used on virtually all common trees and shrubs, including tree fruits.

Oil kills by suffocation rather than by poisoning, and insects cannot become resistant to it. In addition, oil sprays do not have adverse effects on either the applicator or the environment. These attributes make it one of the best insecticides for controlling pests such as scales, mites, aphids and pear psylla.

Superior Oil on Fruit Trees

As a part of a regular fruit spray program, apples and pears should be sprayed with oil yearly to control San Jose Scale, pear psylla, mites and aphids. Although oil used to be applied when trees were dormant, it is better to apply oil when the trees are beginning to grow and insects are becoming active. Do not apply oil when temperatures are below freezing or will go below freezing within 24 hours as plant damage may occur. Do not apply captan within two weeks before or after oil application or injury may occur, since they are not compatible. Summer oil sprays are not recommended since fruit can be damaged.

- **Apples** - Spray twice. *First application*: when the flower buds show about 1/2 inch of green tissue and 1-2 leaves have unfolded, usually in mid April. *Second application*: Spray when flower buds are at tight cluster. Tight cluster is when blossom buds are plainly visible and packed together with short stems.
- **Pears** - Spray when the buds are swollen and some green tissue is showing. Repeat in 7-10 days. Oil sprays are usually not necessary on other tree fruits, grapes or blueberries. However, if there are particular problems with mites or scale insects, other fruits can be sprayed with oil just as buds begin to swell.

Superior Oil on Ornamentals

Formerly, thin barked trees such as beech were listed as being injured by earlier oil formulations. However, current superior oils may be used safely on any species except those trees and shrubs which are low in vigor and/or those that are stressed by drought. Blue spruce may lose its blue color for a few years after an oil spray, but it will not be otherwise harmed.

Superior oil may be applied as dormant or summer foliar sprays. About the time the buds are starting to swell (usually April) is the best time for "dormant" sprays. Summer sprays can be applied in July or August, but should not be applied when the temperature is 90 degrees F or above or when the humidity is high; plant damage may occur. Don't apply oil or any other insecticide when plants are in bloom.

What to Look For

Be certain you are purchasing a "superior" type oil by checking the container label for the following:

- **Saybolt Universal Viscosity** (a measure of the oil's thickness or viscosity) should be between 60 and 70 seconds. For summer sprays, choose the lower number.
- **Boiling Point** (indicates evaporation rate) 412°, plus or minus 8° F for summer and dormant sprays.

- **Un sulfonated Residue or UR** (a measure of purity) should be 92% or higher.
- **Gravity or API** should be 40° or greater for summer sprays, between 30° and 40° for "dormant" sprays.

How Much to Use

Follow the label or use the following amounts:

- **Dormant Sprays** - *First application:* 2-3 gallons of oil per 100 gallons of water. For smaller quantities, 1 quart of oil per 10 gallons of water or 4-6 tablespoons per gallon. *Second application:* 1-2 gallons of oil per 100 gallons of water. For smaller quantities, 3 cups of oil per 10 gallons or 2-3 tablespoons per gallon.
- **Summer Sprays** - 2 quarts of oil per 100 gallons of water. For smaller quantities, 6 1/2 ounces of oil per 10 gallons of water.

Remember, too much oil will damage the plants!

WARNING!!! Pesticides are poisonous. Be sure to read and follow the directions on the pesticide label

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