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# Using Refined Horticultural Oils on Fruit Trees

Since the turn of the century, growers have used oil sprays to control insects overwintering in fruit trees. Today's superior horticultural oils are much lighter and faster-drying than the oils used in the past. The old oil sprays contained impurities which turned the leaves brown if sprayed on green foliage. Thus, the sprays were used only in the dormant season.

With the highly refined, superior oils of today, the application timing has been modified to correlate with the development of the insect pest. Superior oils should have a viscosity rating of sixty to seventy seconds. These oils are less damaging (phytotoxic) to fruit trees when applied correctly. Always read and follow directions listed on the product label.

A true "dormant spray" would be applied before bud break -- before growth starts. A "delayed-dormant spray" is applied after bud break and up to flowering. The timing of oil spray applications is dependent upon the type of fruit tree, the stage of development of the fruit tree, and the life cycle of the targeted insect pest.

Use an oil spray only when the temperature is above 40°F and will remain above freezing for the next twenty-four to forty-eight hours, so that the oil can dry sufficiently. Damage to apple tree foliage after oil spraying has been noted in New England at temperatures as high as 38°F.

Apple fruit tree oil sprays are used in controlling European red mite, scale insects and some aphids. If the home gardener has not had a problem with these insects previously, one oil spray application at the tight cluster to pre-pink stage is recommended. If there is a known insect problem, two oil applications are necessary. Apply the first between bud break and the half-inch green stage and the second at the tight cluster to pre-pink stage.

Pears require two applications of an oil spray to control pear psylla, blister leaf mite, European red mite and scale insects. Spray the first application at the swollen bud stage of development on a warm day. This will ensure that the pear psylla will be active. The second application is sprayed between the green cluster stage and the development of the white bud, or "popcorn," stage.

Peaches, nectarines and apricots should have an oil spray applied before the swollen bud stage. This will control European red mite, San Jose scale and green peach aphids. Spraying plums and prunes at this stage of development will control scale insects and mites.

Cherries require only one oil spray application at the beginning of the swollen bud (bud break) stage. This will control scale insects, aphids and European red mite.

Oil sprays are important but they may not do everything that some home gardeners expect them to do. When applied properly, oil sprays will help control certain insects. Each fruit type will have a critical time for application. The application timing depends on the development stage of the fruit tree and the life cycle of the insect pest. Always read and follow directions listed on the product label to assure personal safety and avoid plant damage.

*(turn over for fruit bud growth stages chart)*

*original fact sheet written by George Hamilton, Extension Agricultural Resource Educator, updated 9/00*

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# Growth Stages In Fruit Trees From Dormancy To Bloom

<i>Apple</i>	<i>Pear</i>	<i>Peach</i>	<i>Plum</i>	<i>Cherry</i>
 Dormant	 Dormant	 Dormant	 Dormant	 Dormant
 Silver Tip	 Swollen Bud	 Swollen Bud	 Swollen Bud	 Swollen Bud
 Green Tip	 Bud Burst	 Bud Burst	 Bud Burst	 Bud Burst
 Half-Inch Green	 Green Cluster	 Half-Inch Green	 Green Cluster	 Early White Bud
 Tight Cluster	 White Bud (Popcorn)	 Pink	 Early White Bud	 White Bud
 Pre-Pink	 King Blossom Bloom	 Bloom	 White Bud	 Bloom
 Pink			 Bloom	
 King Blossom Bloom	<i>Graphics Reference: 1990 Spray Guide for Tree Fruits In Eastern Washington,</i>			