

Disease, Pest Management and Fruit tree care in the Home Orchard

Fruit trees have been grown in home orchards for centuries. The goal of many gardeners today is to have fresh fruit from their own trees with a minimum of spraying. There are many ways to reach that goal, but we feel young fruit trees do need some annual spraying to be healthy and productive. We try to emphasize organic and least toxic methods for keeping your orchard healthy.

- ▶ Choose disease resistant fruit tree varieties when possible.
- ▶ Monitoring your orchard for bud and blossom stages is the key to good dormant spray timing.
- ▶ Monitoring your orchard for problems for problems is key to good pest management.
- ▶ Know why you are spraying! Some sprays recommended here are proactive- trying to prevent common problems through maintenance. Beyond general maintenance (dormant) spraying, never spray without identifying the problem. ▶ When mixing spray solutions, always mix less than you think you will need, as disposal of the leftovers is difficult. Try spraying just water on your orchard to see how much will give you good coverage. ▶ Always follow the directions on the container label. If the label is missing or unreadable, contact the company for directions (most pesticide labels are available online). ▶ Many insect pests have natural controls in the form of beneficial insects. Avoid using broad spectrum insecticides if possible. If they are necessary, spray at dusk to limit the impact on bees and other beneficials.

Apples and Pears

Winter

Apples and Pears

Apply dormant oil, being sure to thoroughly coat the branches and trunk bark, to help control codling moth.

Peaches and Nectarines

At bud break or stage 2 (see Blossom Chart), apply sulfur or Bordeaux (Copper) with a spreader sticker to protect for Peach Leaf Curl. (*taphrina deformans*) Spores lodge in bud scales 1st spray with lime sulfur when buds begin to swell. Spray again (2nd spray) in three weeks and (3rd spray again 3 weeks later Spray every 3 weeks for a nine week period (3 sprays) or until the tree is leafed out. Resistant varieties like Frost Peach develop resistance but should be sprayed until established.

Pears (plantings less than 2 years old) When first green shows in buds, apply copper sulfate, fixed copper, or Bordeaux to prevent pseudomonas infection. Asian pears are most susceptible. Take home message: The spray has to be on before temperature and rain allow infection. Curl resistant varieties should be sprayed while young. Always read and follow instructions.

Spring

Apples and Pears Between stages 4-6 apply a delayed dormant spray of micronized sulfur or lime sulfur and oil. This 1st spray helps protect the trees against powdery mildew infections and smothers eggs and crawlers of aphids, mites, leafrollers, and scale insects.

Between Stages 6-7 when flower buds begin to open and flower stems are separate apply a spray of sulfur to prevent scab and powdery mildew.

. This spray is not necessary for varieties resistant to these diseases

Bacillus thuringiensis (Bt.) can be added to this spray to help control leafroller. Bt. can also be applied separately or mixed with insecticidal soap to control leafrollers and cutworm at this time.

At petal fall apply a second scab and mildew spray, using sulfur with a spreader- sticker. Bacillus thuringiensis (Bt.) or spinosad can be added to this spray to help control leafroller..

Apricots, Peaches, Nectarines, Cherries, and Plums

At stage 3 apply a delayed dormant spray of copper mixed with oil or bordaux, Copper is effective against blossom blight and brown rot, and the oil will smother eggs and crawlers of overwintering pests. Do not spray cherries later than stage 3

Plums If black knot has been observed, spray with Sulfur or Serenade™ just after petal fall.

Summer

All Fruit

Monitor foliage for aphids, leafrollers, cutworms and other insect pests. Spray if damage is apparent. Insecticidal soap or summer oil are effective on aphids. Bt. is effective on caterpillars and leafrollers, and most effective sprayed late afternoon or on cloudy days.

Apples, Pears

Monitor and control codling moth and apple maggot- See handout on codling moth and apple maggot.

Pears and Cherries

Monitor for pear slug (actually a sawfly larvae). Hand pick small numbers. Spray larger infestations with insecticidal soap or dust with diatomaceous earth

Plums

Monitor for black knot infections, and prune below the knots after harvest.

Fall

Apricots, Peaches, Nectarines, Cherries, Pears and Plums

As the trees are losing their leaves, before hard winter rains, apply copper or Bordeaux plus a spreader-sticker. This helps protect the trees against canker infections.

Pears

If blister mite has been observed, spray Sulfur or Oil plus sulfur just after leaf drop, thoroughly covering all buds and bark.

All Fruit

Rake up and destroy fallen leaves and fruit. If codling moth or apple maggot has been a problem, do not compost but discard the fruit.

All Year

Prune your trees to keep them open to light and air circulation

Keep the orchard clean, removing diseased wood, foliage, or fruit if needed. Rake up fallen leaves in the fall, or mow them so they decay quickly.

Keep the trees adequately watered in summer. Stressed trees are more prone to problems. Encourage your neighbors to keep their fruit trees healthy, too. Pests don't recognize your property boundaries!

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maggot.

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