

ORGANIC DISEASE AND INSECT CONTROL ON FRUIT TREES AND SMALL FRUITS

By Carol Ponchet-Cassidy

To ensure a healthy, trouble-free, productive fruit tree, the following recommendations are helpful:

- 1) All fruit trees do best when planted in full sun.
- 2) They prefer to be a significant distance away from stands of evergreens (because evergreens acidify the soil)
- 3) They need a healthy, loamy soil, and good drainage. No fruit tree will do well in standing water.
- 4) They should be properly planted (see planting guide) and adequately watered for their first few years.
- 5) They will need a rejuvenating mulch (1" – 2") such as compost mixed with good soil and rotted manure, or sea-soil applied either every spring or every fall.
- 6) They should be pruned every year to facilitate sunlight penetration into the tree and to allow for good air circulation.
- 7) Good hygiene practices are highly beneficial. Always rake up any tree debris and pull competing weeds.
- 8) Lastly, a light icing-sugar dusting of dolomite lime on the ground around the tree either every fall or spring will help deter diseases as well as bring calcium and magnesium to the tree.

DISEASE CONTROL

CAUTION - Please, always read all product labels carefully before mixing and applying. Always know WHAT you are spraying for before you start.

HINT - Spray early in the morning for best results (before flying insects are active). Choose a dry day. Adjust the nozzle on your sprayer to emit droplets rather than a fine mist that can drift on the breeze.

HINT - Always rake up leaf and pruning debris and burn or bury. Do not compost. Insect eggs and larvae as well as bacterial and fungal spores will live quite happily in your compost pile.

Peach leaf curl: (Affects peaches and nectarines)

- Use 'Fixed Copper'
- Make **1st** application in Sept. after harvest.
- Re-apply in Nov. after all leaves have fallen. A squirt of Ivory dish soap in the mix will help it flow more smoothly through your sprayer and will make it stick to the tree.
- Use 'Lime-Sulfur' in Dec. /Jan.
- Spray again pre-bloom

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- Planting the peach tree on the south or west side of your house, under the overhang helps keep the tree dry in spring (when diseases spread) and the fruit will benefit from the heat.

Brown Rot: (Affects all stone fruits)

- Use Fixed Copper at label rates pre and post bloom.
- Practise good hygiene.
- Prune out infected branches.
- Dust the ground with dolomite lime in the fall and spring from the trunk out past the drip-line.

Canker: (Affects apples, pears and stone fruits)

Bacterial Canker (affects stone fruits i.e.: cherry, peach, plum)

- Use 'Fixed Copper'
- Make first application before fall rains and/or at leaf-fall.
- Repeat before the buds open in the spring (usually in March).
- Prune out existing cankers and burn (Note - disinfect tools).

Anthracnose Canker (affect apples and pears)

- Infections occur during wet weather, especially after the onset of fall rains.
- Use 'Fixed Copper' after the harvest and before fall rains begin.
- Prune out existing cankers and burn (Note – disinfect tools)

European Canker (affects apples and pears)

- Infections occur during fall rains and again when the buds break in the spring.
- Use 'Fixed Copper' at 6ml/L. of water and apply before fall rains.
- Apply again as leaves are falling, and after all the leaves have dropped.
- Avoid pruning during wet weather.
- Prune out existing cankers and burn (Note: disinfect tools)

MILDEW: (Can affect many different kinds of trees)

- Good pruning practices to allow air circulation and sunlight penetration into the tree are very beneficial.
- If the mildew is a serious problem, spray with Sulfur pre-bloom and repeat the spray 2 weeks apart after petal fall.

SCAB: (Affect apples and pears)

- Do not use sprinklers that wet the leaves. Use only drip lines or low full-head sprinklers.
- Spray with 'Lime-Sulfur' after all the leaves have dropped.
- Make next application at pink-bud stage.

- Repeat after bloom is finished with fixed copper.
- Repeat 2 weeks later with fixed copper.
- **NOTE:** Do not spray the pear variety “Beurré d’Anjou” with lime-sulphur. It has very adverse reactions to lime sulphur and many of the fruiting buds will burn.

INSECT CONTROL

(For all fruit trees)

Good cultural practices make a big difference to your trees health, and it’s ability to withstand and recover the ravages of visiting insects.

1. Good cultural controls include hygiene, i.e. weed control and burning or burying of fruit tree debris
2. Spray 'Horticultural Oil' by itself (or with Lime-Sulphur') in late February or early March, when the buds are starting to swell but haven't opened yet.
3. Watch for insects such as: leaf rollers, aphids and tent caterpillars in the spring. If there are too many to squish or remove by hand or with water pressure, use an insecticide.
4. There are several biologically safe insecticides on the market today. Ask your salesperson.
5. You may need to spray before bloom. Some insects such as leaf rollers and aphids can be active at this time.
6. Safer's BTK is effective against young insects, and needs to be applied twice, 7 days apart. Spray the entire tree. The goal is to apply the BTK to the foliage and buds. The insects will ingest the product as they eat, and die.
7. Don't forget 'Tanglefoot' a sticky trunk wrap that catches climbing insects. Many homeowners are keeping the tanglefoot on their trees year round as insects appear in every season. A useful tip is to start wrapping the trunk about 1 foot up with a 6 inch band of duct tape, then apply the tangle foot to the tape. This makes for easier removal when you refresh the tanglefoot (refresh when it is no longer sticky).
8. Codling Moth is a major pest of apples and pears. There are several environmentally safe methods that help. Please refer to the “Codling Moth” handout.
9. Encourage birds to visit your garden. They will help reduce the insect population in your trees.