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Common insect pests and diseases on fruit trees in the home garden

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Please report anything unusual to the Pest and Disease Information Service on

9368 3666 or 1800 084 881
Email: info@agric.wa.gov.au
Web: www.agric.wa.gov.au
Introduction

Home gardeners frequently see insect pests and diseases affecting their fruit trees. Usually they would have seen them in previous seasons, so the pests or diseases look familiar. However, there are occasions, when an unusual pest (not native to Western Australia) can occur. These exotic pests are a concern for the farming community, as they could threaten the agricultural and horticultural industries and increase the price of production and the cost to the consumer.

This bulletin describes the most common insect pests and diseases on fruit trees in home gardens.

Please report anything unusual to the Pest and Disease Information Service on 9368 3666 or 1800 084 881.

Control

As chemical registrations constantly change, this bulletin does not recommend any control measures. Your local plant nurseries or hardware stores can assist you with advice.

Important disclaimer

The Chief Executive Officer of the Department of Agriculture and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

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## BLACK VINE WEEVIL

**PEST**
Black vine weevil

**FRUIT**
Widely host range, particularly strawberries and cut flowers.

**SYMPTOMS**
- Grubs feed on roots and can eventually kill plants.
- Adults leave characteristic notches in leaves.
- All year, but grubs are most active during Spring.
- Adults feed at night; grubs spend winter in soil, burrowing deeper if cool.

**SEASON**
- All year, but grubs are most active during Spring.

**COMMENT**
- Adults feed at night; grubs spend winter in soil, burrowing deeper if cool.

---

## CODLING MOTH

**PEST**
Codling moth

**FRUIT**
Pome fruit; prefers apples

**SYMPTOMS**
- Small grub holes on skin of fruit; fruit may drop prematurely.
- Grubs in fruit; abundant frass seen on outside of fruit; over wintering cocoons on rough bark on trunk of tree.
- All year, but visible from October – March during apple and pear season.

**SEASON**
- All year, but visible from October – March during apple and pear season.

**COMMENT**
- Three generations every year; pupate under bark.

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## EUROPEAN RED MITE (ERM)

**PEST**
European red mite (ERM)

**FRUIT**
All trees; prefers summer fruit

**SYMPTOMS**
- Pale spotting on leaves; as mite populations increase the leaves appear bronzed.
- Under-surface of the leaf brown, and badly damaged leaves may fall early; reduced yield and sugar levels; red over-wintering eggs with spine under bark on trunk and lower branches.
- September – February.

**SEASON**
- All year, but visible from October – March during apple and pear season.

**COMMENT**
- Present in NZ and Eastern States.

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## EXOTIC FRUIT FLIES

**PEST**
Exotic fruit flies

**FRUIT**
Wide range of fruits and vegetables

**SYMPTOMS**
- As Mediterranean fruit fly is established in WA, grubs in fruit do not necessarily mean that an exotic fruit fly is present.
- Unusual patterns such as fruit fly attacking undamaged avocados should be reported.
- All year when fruit are present.

**SEASON**
- All year when fruit are present.

**COMMENT**
- Looks different from Mediterranean fruit fly in thorax colour.
  (see photos on page 18)
### Grape Phylloxera

**Grapevines**

Galls on grapevine roots; after 2 to 3 years of infestation, grapevine leaves yellowing, plants showing poor growth.

All year, peaking in mid Summer.

Small aphid < 0.5 mm long; transmitted by human action; lives in roots; above ground damage is only visible 2 to 3 years after infestation.

### Western Flower Thrip

**Many crops, but mainly a pest in greenhouses on ornamental plants.**

**It has many hosts – recorded on 244 plant species**

Discolouration of the upper leaf surfaces; indentations where feeding occurs. Foliage may show: silvering; deformity and growth malfunctioning; surface lumps; halo-spotting – small dark scars surrounded by white tissue. On some host plants such as capsicums, egg laying causes a reaction of the surrounding plant tissue. Feeding causes scarring and discolouration of flowers and deformity in buds if these are attacked at an early stage.

All year.

Western flower thrip is established in the Perth metropolitan area, but report when it occurs in rural Western Australia.

If any of these exotic pests are suspected, report to Pest and Disease Information Service on 9368 3666 or 1800 084 881.
### Common Insect Pests

<table>
<thead>
<tr>
<th>Pest</th>
<th>Fruit</th>
<th>Symptoms</th>
<th>Season</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African Black Beetle</strong></td>
<td>Young Grapevines and Trees</td>
<td>Ringbarking of young plants at or below ground level; presence of splayed, fibrous tissue on stem of plant; yellow or red leaves.</td>
<td>Adults from Summer – Spring; grubs late Spring to mid Summer.</td>
<td>Prefers clayey and loamy soils.</td>
</tr>
<tr>
<td><strong>Apple Dimpling Bug</strong></td>
<td>(Light Brown) Apple Moth</td>
<td>Chewed and skeletonised leaves in low centre of trees; damage on ripening fruit surface where fruit touches leaves; shelters in lengthwise rolled leaves held by webbing.</td>
<td>Caterpillar up to 20 mm long; yellow to light green; gumming occurs on damaged fruits.</td>
<td></td>
</tr>
<tr>
<td><strong>Aphids (Woolly Apple Aphids)</strong></td>
<td>All Fruit Trees; Apples</td>
<td>Small, soft insects on shoots and young growth. Mainly Spring and Autumn.</td>
<td>April – September, November – January.</td>
<td>Sap suckers; aphids can carry viruses. Woolly appearance.</td>
</tr>
</tbody>
</table>
### COMMON INSECT PESTS

<table>
<thead>
<tr>
<th>PEST</th>
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<th>SEASON</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPLE WEEVIL</strong></td>
<td><strong>ALL, BUT PREFERENCES CHERRIES</strong></td>
<td>Grub feeds on tree roots; adult can ringbark young trees and fruit stalks (resulting in reduced fruit sizes).</td>
<td>November - April.</td>
<td>Feeds at night.</td>
</tr>
<tr>
<td><strong>CAROB MOTH</strong></td>
<td><strong>CAROB BEANS, ALMONDS, ORANGES, POME FRUIT, FIGS, LOQUATS, STONE FRUIT, AVOCADOES</strong></td>
<td>Grub feeds on kernels as soon as green hulls begin to split; in oranges grub bores into the navel end causing premature ripening and fruit drop; in other fleshy fruit, grub feeds on the seeds or near the stone.</td>
<td>All year; most active in warmer weather.</td>
<td>Remove mature nuts from tree, as moths over Winter in old nuts on ground; most abundant in the metro area, more uncommon in south-west orchards.</td>
</tr>
<tr>
<td><strong>BRYOBIA MITE</strong></td>
<td><strong>ALL FRUIT TREES; PREFERS APPLES AND PEARS</strong></td>
<td>Mites feed on upper surface at night; feeding sites appear stippled, paler than surrounding areas.</td>
<td>Spring – Autumn.</td>
<td>Tree may defoliate if numbers too high.</td>
</tr>
<tr>
<td><strong>CATASARCUS WEEVIL (REDLEGGED WEEVIL)</strong></td>
<td><strong>SOMETIMES ON GRAPEVINES</strong></td>
<td>Leaves scalloped along edges; tree sometimes seriously defoliated.</td>
<td>During growing season.</td>
<td>Native weevils feed in Summer on eucalyptus leaves.</td>
</tr>
</tbody>
</table>
### COMMON INSECT PESTS

#### CARPOPHILUS (DRIED FRUIT BEETLE)
**PEST**
ALL FRUIT TREES  
**SYMPTOMS**
Burrows into ripening fruit on stem end or in natural cracks.  
**SEASON**
All year; Summer rainfall and rotting fruit provide good conditions for breeding.  
**COMMENT**
Lays eggs in rotting or damaged fruit, so keep garden floor clean.

#### CITRUS LEAFMINER
**PEST**
CITRUS  
**SYMPTOMS**
Snake-like mine on underside of citrus leaves; twisted and curled leaves.  
**SEASON**
Late Summer and early Autumn; peak in March and April.  
**COMMENT**
Unsightly damage to tree, but no significant yield loss.

#### CITRUS WHITEFLY
**PEST**
CITRUS, BUT OTHER WHITEFLY SPECIES HAVE WIDER RANGE  
**SYMPTOMS**
Eggs and pupae sticking to underside of leaves; insects fly in clouds when disturbed.  
**SEASON**
All year; greatest population in Spring and Autumn.  
**COMMENT**
Sap suckers; leave sooty mould on fruit; mould grows on the sweet material secreted by the whiteflies.
<table>
<thead>
<tr>
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<th>FRUIT</th>
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<th>SEASON</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>COON BUG</strong></td>
<td><strong>ALL TREES</strong></td>
<td>Sucks sap; occasionally a problem on young trees.</td>
<td>All year; most abundant in warm weather.</td>
<td>Breeds in marshmallows and hogweeds.</td>
</tr>
<tr>
<td><strong>CRUSADER BUG</strong></td>
<td><strong>ALL TREES; PREFERS YOUNG CITRUS</strong></td>
<td>Sucks sap; occasionally a problem on young trees, and all new growth.</td>
<td>All year; most abundant in warm weather.</td>
<td>When disturbed, shoots out a stinking fluid.</td>
</tr>
<tr>
<td><strong>EUROPEAN EARWIG</strong></td>
<td><strong>ALL FRUIT TREES</strong></td>
<td>Holes in leaves, shallow and irregular damage to fruit.</td>
<td>September – March.</td>
<td>Damages flowers, shoots, leaves of summer fruit, vineyards and vegetables.</td>
</tr>
<tr>
<td><strong>FULLER’S ROSE WEEVIL</strong></td>
<td><strong>ALL, BUT PREFERS PLUMS AND APRICOTS</strong></td>
<td>Grub feeds on tree roots; adult can ringbark young trees and fruit stalks (resulting in reduced fruit sizes). Frass may foul fruit at the stalk end.</td>
<td>November – April.</td>
<td>Lays eggs in mini sprinklers, blocking them.</td>
</tr>
</tbody>
</table>
### COMMON INSECT PESTS

#### GRASSHOPPERS AND LOCUSTS

**ALL PLANTS**

Plants chewed or skeletonised.

- **Summer** – **Autumn.**
  - Can come in large numbers; affected trees more likely to be near pastures.

- **Australian plague locust**
  - [Image 1](#)

- **Yellow winged locust**
  - [Image 2](#)

- **Wingless grasshopper**
  - [Image 3](#)

#### FRUIT TREE PINHOLE BORER

**ALL FRUIT TREES, BUT APRICOTS AND PLUMS MOST SUSCEPTIBLE**

- Female beetles bore into trunk leaving fragile spines of frass, which stick out of the trunk like toothpicks. Foliage of tree becomes yellow, then brown and tree dies.
- Females fly at temperatures over 21°C.
- Grubs emerge in 2 months and feed on fungus that grows on faeces of grubs and on tunnel walls; affects mainly trees suffering stress.

- **Damage**
  - [Image 4](#)

- **GARDEN WEEVIL**

**ALL; PREFER APPLES, GRAPEVINES, NECTARINES**

- Feeds on fruit, causing scarring.
- October – February.
- Chewing insect; nocturnal.

- **Damage**
  - [Image 5](#)

- **HELIOTHIS**

**ALL FRUIT TREES**

- Caterpillars feed on flowers, new shoots and newly set fruit, causing fruit drop.
- November – April.
- Two species of Heliothis: native budworm and cotton bollworm; corn earworm or tomato grub almost identical.
- On young trees Heliothis feed on growing points of leaders so extra training is required later.

- **HELIOTHIS**
  - [Image 6](#)

- **GARDEN WEEVIL**

**ALL; PREFER APPLES, GRAPEVINES, NECTARINES**

- Feeds on fruit, causing scarring.
- October – February.
- Chewing insect; nocturnal.

- **Damage**
  - [Image 7](#)

- **FRUIT TREE PINHOLE BORER**

**ALL FRUIT TREES, BUT APRICOTS AND PLUMS MOST SUSCEPTIBLE**

- Female beetles bore into trunk leaving fragile spines of frass, which stick out of the trunk like toothpicks. Foliage of tree becomes yellow, then brown and tree dies.
- Females fly at temperatures over 21°C.
- Grubs emerge in 2 months and feed on fungus that grows on faeces of grubs and on tunnel walls; affects mainly trees suffering stress.

- **Damage**
  - [Image 8](#)
**COMMON INSECT PESTS**

### Mealybug

**APPLES, Pears, Nashi, Citrus, Grapevines and Hothouse Plants**

Small, oval, sap-sucking insects up to 4 mm long, covered with a fluffy layer of protective wax. Colonies look like blobs of sticky cotton wool and may be accompanied by sooty mould.

All year but more prominent in Summer and Autumn.

Sap suckers; propagated by ants; over Winters under bark; produce sooty mould on citrus.

### Looper Caterpillar

**All Fruit Trees**

Attacks foliage and sometimes flowering and fructifying parts; caterpillar up to 35 mm long.

More abundant in warm weather.

Moves by a distinct looping action.

### Mediterranean Fruit Fly

**All Fruit Trees**

Tunnels in the pulp of fruits; decomposing the fruit inside; early fruit drop.

November – June.

Most significant insect pest in Summer fruit. Collect fallen fruit, seal in plastic bags and place in bin.

### Nematodes

**All Fruit Trees**

Tree stunted with very few feeder roots; root lesions.

Active year round but biggest numbers in Summer.

Most trees are grafted onto resistant rootstocks. Chemical treatments are dangerous; seek expert advice.
**PEAR LEAF BLISTER MITE**

**PEARS**

Blisters on leaves, young fruit and buds, turning red, then black; buds fail to grow.

All year but worst in December – February.

Over-winters in buds.

**RUTHERGLEN BUG**

**ALL FRUIT TREES**

Thin strings of clear gum hang down from green fruit; fruit shrivel, do not mature; young foliage wilts rapidly.

Spring – Summer.

Sap sucking insects; breed in weeds; keep garden clean to prevent; move in swarms and settle in thick clusters on Summer fruit.

**SCALES**

**ALL FRUIT TREES AND ORNAMENTALS.**

**SOME SCALES PREFER SUMMER FRUIT AND SOME PREFER CITRUS. SEE WEBSITE FOR MORE DETAILS.**

Trees appear water stressed; leaves turn yellow and fall; limbs die and bark cracks and exudes gum. Crawlers can cause halo-like red discolouration on fruit and a bright red mark under the bark of tender wood.

All year but are a problem May – September and October – January for pome fruit; June – December for stone fruit. On citrus, crawlers emerge in Summer and settle as waxy scales from Autumn – Winter depending on the type of scale.

Sap suckers; categorised as either hard or soft. Soft scales rarely kill trees, but excrete honeydew on leaves and fruit, which attracts black sooty mould and ants.
COMMON INSECT PESTS

SNAILS AND SLUGS

ALL FRUIT TREES

Minor leaf damage, occasionally feeding on fruit; faeces on fruit.

All year.

Move during rainy periods.

SNAILS

- Common garden snail
- White Italian snail
- Vineyard snail
- Small pointed snail

SLUGS

- SLUG

SPRING BEETLE

ALL FRUIT TREES

Young growing shoots, leaves and flowers are chewed.

Spring and early Summer.

Usually only active for 3 weeks.

SPRING BEETLE

ALL FRUIT TREES

THRIPS

ALL FRUIT TREES

Scars on fruit as nymphs feed on immature fruit; possible silvering of fruit before ripening; damage on terminal shoots stops them from growing.

August – November.

Over-winters as adults in weeds; minimise weeds.

TWO-SPOTTED MITES

ALL FRUIT TREES

Yellow stippling on leaves, webbing; mites mainly on underside of leaves; on peach trees on the upper leaf surface. Heavy infestation can cause leaf drop, exposing the fruit to sunburn.

Warmer months; prefers dry and hot conditions.

Two-spotted mites cut tissue and suck oozing sap.

TWO-SPOTTED MITES

PEST FRUIT SYMPTOMS SEASON COMMENT

THRIPS

PEST FRUIT SYMPTOMS SEASON COMMENT

TWO-SPOTTED MITES

PEST FRUIT SYMPTOMS SEASON COMMENT

SNAILS AND SLUGS

PEST FRUIT SYMPTOMS SEASON COMMENT

SPRING BEETLE

PEST FRUIT SYMPTOMS SEASON COMMENT
APPLE SCAB

APPLES

Leaves

Apple scab symptoms occur on both fruit and leaves throughout the growing season. On leaves, apple scab appears as black spots on either the upper or lower leaf surface. Spots appear as light green areas that later turn olive green or black and velvety.

Numerous spots on a leaf may merge along the veins and extend over much of the surface.

Older spots on the upper surface can become raised and give infected leaves a blistered, scabby appearance.

Leaf infection late in the season shows as dark grey to black angular spots on the under surface.

Fruit

Initially, fruit infections are small, black, and circular. As the spots enlarge, the central area becomes black and corky and the surrounding border shows a greyish-white band of loosened skin.

Fruit infected early in development becomes severely scabbed; infection on nearly mature fruit results in small spots with little distortion.

During growing season. Extremely serious, could come from Eastern States.

If any of these exotic diseases are suspected, report to Pest and Disease Information Service on 9368 3666 or 1800 084 881.
### Fire Blight

**Pome Fruit**

Watery exudate oozes out of infected plant parts under humid conditions; oozes appear milky. Certain parts, like blossoms, appear water-soaked and grey-green. Developing fruits remain small, and appear shrivelled and dark. Woody parts have red to dark staining in the xylem and pith.

Finally, affected parts appear dark, as if scorched by fire.

All year; over-winters in bark tissue, becomes active in Spring.

Bacteria; can be spread by bees; controlled with copper bactericides and removal of cankers.

---

### Alternaria

**Apples, Pears, Stone Fruit, Citrus**

Circular, dry, firm, shallow lesions on leaves or later on fruits.

All year; peaks in rainy and foggy conditions.

Encouraged by overhead sprinklers.

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If any of these exotic diseases are suspected, report to Pest and Disease Information Service on 9368 3666 or 1800 084 881
**BACTERIAL SPOT**  
**STONE FRUIT**

**Leaves:** greenish yellow spots that can enlarge in wet weather into angular water-soaked areas, often with a yellow halo on plums. When the spots dry out, they become brownish purple and drop out, giving a shothole appearance.

**Twigs:** sunken, elongated areas, initially dark green, but becoming tan.

**Fruit (peach):** many tan spots less than 1 mm in diameter, often becoming cracked and pitted, with gum formation and a green halo.

**Fruit (plum):** small, oily spots turning dark brown, becoming depressed and cracking in the centre. With severe infection, spots can be 15 mm or more in diameter.

April – September.

Transmitted in water droplets; avoid Winter pruning; practise hygiene; use a copper fungicide control program.

---

**BACTERIAL CANKER (ALSO CALLED BACTERIAL SHOTHOLE, STONE FRUIT BLAST, BACTERIAL GUMOSIS)**

**STONE FRUIT**

**Leaves:** brown irregular spots, which rapidly drop out to produce a shothole effect.

**Twigs:** sunken dark spots, often with gumming. The terminal, young growth often withers.

**Limbs:** usually elongated cankers with gumming. The tissue under the canker is discoloured.

**Fruit:** infection causes raised purple spots on green fruit, becoming sunken with dark centres as the fruit matures.

April – September.

Transmitted in water droplets; avoid Winter pruning; practise hygiene; use a copper fungicide control program.
<table>
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<tr>
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<th>Fruit</th>
<th>Symptoms</th>
<th>Season</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitter rot</td>
<td>Apples and pears</td>
<td>Small, brown, circular areas develop on fruit surface. Spots later become sunken, forming a saucer-shaped depression. Under wet weather conditions, pink fruiting bodies of the fungus develop in the centre of the rotten area. Management via spraying of fungicide and removal and burning of all infected material.</td>
<td>During fruiting season after petal fall: September – June.</td>
<td>Management via spraying of fungicide and removal and burning of all infected material.</td>
</tr>
<tr>
<td>Botrytis</td>
<td>Grapes</td>
<td>Moist rot on the berries and other fleshy parts of the vine; at latest stages visible as a grey felt-like mat of spores. Occurs during growing season but peaks with humidity and temperature after rainfall. Remove affected bunches; fungus over Winters on mouldy bunches; use appropriate fungicides to prevent infection.</td>
<td></td>
<td>Remove affected bunches; fungus over Winters on mouldy bunches; use appropriate fungicides to prevent infection.</td>
</tr>
</tbody>
</table>
| Brown rot        | Stone fruit and pome fruit | Superficial, circular, brown spots expand outwards on the surface of mature fruit resulting in soft decay of the flesh. Tufts of grey fungus develop on surface of lesion. Cankers may also be found on shoots and small branches. Usually at fruit maturity. Regular spray program will also control brown rot; remove affected fruit. | November – February. Soil and water borne fungus; may breed on native plants. |}

**Botrytis on grapes.**

**Bitter rot on apples.**

**Bitter rot on pears.**

**Brown rot on peach.**

**Collar rot on apples.**

**Collar rot on pears.**
**CROWN ROT**

**POME FRUIT**

Similar to collar rot but affects rootstock of the tree.

November – February.

Soil and water borne fungus; may breed on native plants.

**DIEBACK (J ARRAH)**

**AVOCADOS, SOME NUT SPECIES**

Plants become chlorotic and show poor growth, or plants die suddenly.

Warm and moist conditions.

Fungus affects root system; make sure plants are well drained; treatments possible via stem injection: contact the Department of Agriculture for current recommendations.

**CROWN GALL**

**APPLES AND PEARS**

Galls, varying in diameter located on the crown and roots.

Grow at temperatures > 20°C.

Caused by a bacterium; may be transmitted through rootstock or pruning; maintain hygiene.

**DOWNY MILDEW**

**GRAPES**

Small yellow spots (oil spots) on upper surface of young leaves, later enlarging to cover most of the leaf.

Warm and moist conditions.

Avoid high density plantings; prune to open up canopy; use fungicides.
### COMMON DISEASES

#### LEAF CURL

**STONE FRUIT**

Leaves become thickened, blistered, and greatly distorted; curled parts turn yellow with pink tinge or become deep red. Whitish bloom covers the infected leaf surface. Eventually these leaves shrivel and fall. Severe infection results in heavy defoliation. Shoots become stunted and distorted with death of the terminal bud. Fruit develop red irregular blistered areas giving the appearance of early ripening.

July – December.

Fungus resides in branches; affects trees early in season; as weather warms up, tree outgrows fungus and loses symptoms; several fungicide applications early in season gives good control.

#### FLYSPECK

**APPLES**

Distinct groupings of shiny, black fungal bodies on the surface of the fruit.

September – June.

Over-winters on twigs.

#### FRECKLE

**STONE FRUIT**

Small greyish spots on fruit turn into lesions; 0.8 cm diameter of dusty or velvety green appearance. Numerous lesions are clustered near the stem end of the fruit.

August – December.

Over-winters on twigs; open pruning discourages fungus.
PEAR SCAB
PEARS
Scab first appears on the bottom and later on the side of the fruit. Infected fruit often become misshapen. Infection begins at the green-tip stage of flower bud development.

Infection is highest when blossoms are open, but continues for about 6 – 9 weeks.

Scab spores develop during the Winter, in infected leaves on the ground; use an effective fungicide control program.

PEST SYMPTOMS SEASON COMMENT
PEAR SCAB PEAR
Scab first appears on the bottom and later on the side of the fruit. Infected fruit often become misshapen. Infection begins at the green-tip stage of flower bud development.

Infection is highest when blossoms are open, but continues for about 6 – 9 weeks.

Scab spores develop during the Winter, in infected leaves on the ground; use an effective fungicide control program.

POWDERY MILDEW
POME FRUIT
White, felt-like patches on mainly lower surface of leaves; later, whole leaf can be affected. Curled leaf, which becomes brittle. Small russeted fruit.

September – January.

Resistant cultivars of pome fruit are available; fungicides can give good control.

POWDERY MILDEW POME FRUIT
White, felt-like patches on mainly lower surface of leaves; later, whole leaf can be affected. Curled leaf, which becomes brittle. Small russeted fruit.

September – January.

Resistant cultivars of pome fruit are available; fungicides can give good control.

PHYTOPLASMA
STONE FRUIT
Trees have smaller, paler leaves, often curled upwards and occasionally reddening of the mid-veins and petioles. Reduced growth and overall dwarfing of tree.

Rootstock may reshoot.

Growing season.

Transmitted in budding and grafting; also by insect-like leafhoppers.

RUST
STONE FRUIT
Pale, yellowish green, angular spots on both leaf surfaces, which turn yellow. Twigs may split, fruit develop water-soaked greenish spots that become sunken as fruit growth continues.

August – December
April – June.

Over-winters in twigs.

RESISTANT CULTIVARS OF POME FRUIT ARE AVAILABLE; FUNGICIDES CAN GIVE GOOD CONTROL.
**COMMON DISEASES**

**SCLEROTINIA** (green fruit rot, calyx end rot)

**MOST (400 SPECIES) FRUIT TREES**

Affects blossoms and immature fruit. Starts in floral parts and spreads onto growing fruit. White mycelial mass and black sclerotia visible. In calyx-end rot a single, circular to oblong sunken lesion develops at the calyx end of infected fruit.

**Symptoms**

- **Leaves:** greenish yellow spots; can enlarge in wet weather into angular water-soaked areas, often with yellow halo on plums. When spots dry out, they become brownish-purple and drop out, giving a shothole appearance.
- **Twigs:** sunken, elongated areas, initially dark green, but becoming tan.
- **Fruit (peach):** many tan spots less than 1 mm diameter, often becoming cracked and pitted, with gum formation and green halo.
- **Fruit (plum):** small, oily spots turning dark brown, becoming depressed and cracking in the centre. With severe infection, spots can be 15 mm or more in diameter.

**Season:** August – December.

**Comment:**

Over Winters in soil as sclerotia: black hard bodies; spores can only infect dying and senescent tissue, like wilting petals; once established, can infect healthy tissue; keep open canopy and minimise wetting the foliage at flowering.

**Bacteria:**

- Over-winters in twig cankers and leaf scars that are exposed during Autumn leaf fall, then multiply in the Spring; bacteria can then be spread by water splash from rain or irrigation to the opening leaf buds.

- Carefully prune during Winter to remove as many branches and twigs as possible carrying Summer cankers; collect and burn the prunings; use a fungicide control program.

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**SHOTHOLE**

**STONE FRUIT**

**Symptoms**

- **Leaves:** greenish yellow spots; can enlarge in wet weather into angular water-soaked areas, often with yellow halo on plums. When spots dry out, they become brownish-purple and drop out, giving a shothole appearance.
- **Twigs:** sunken, elongated areas, initially dark green, but becoming tan.
- **Fruit (peach):** many tan spots less than 1 mm diameter, often becoming cracked and pitted, with gum formation and green halo.
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**Season:** August – December.

**Comment:**

- Over Winters in twig cankers and leaf scars that are exposed during Autumn leaf fall, then multiply in the Spring; bacteria can then be spread by water splash from rain or irrigation to the opening leaf buds.

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SOOTY BLOTCH

APPELS

Shades of olive green fungal bodies on the surface of the fruit developing into portions covering most of the fruit.

September – June.

Over Winters on twigs.

VERTICILLIUM WILT

STONE FRUIT

Sudden wilting of leaves on one or more branches, rapid browning. Can start at base and move upwards. Young trees may be killed. Older trees may become stunted and lose productivity. Vascular tissue may be stained.

Early Summer.

Avoid planting in known infected soils or fumigate soil.

ACKNOWLEDGEMENTS

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