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Common insect pests and diseases on vegetables in the home garden

Harald Hoffmann

Stewart Learmonth

Peter Wood

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Common insect pests & diseases on vegetables in the home garden
Introduction

Home gardeners frequently see insect pests and diseases affecting their vegetables. Usually they would have seen them in previous seasons, and the symptoms look familiar. However, there are occasions, when an unusual pest (not native to Western Australia) can occur. 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 cost to the consumer.

This bulletin describes the most common insect pests and diseases in home vegetable 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 store can assist you with advice.

Important disclaimer

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## INSECT PESTS

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## DISEASES

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<td>Many Vegetables</td>
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<td>Broad beans</td>
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<td>French and runner beans</td>
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<td>Beetroot</td>
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<td>Silver beet</td>
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<td>PEST</td>
<td>VEGETABLE</td>
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<tr>
<td><strong>AFRICAN BLACK BEETLE</strong></td>
<td>Prefer potatoes, tomatoes and sweetcorn; also attack cabbages and cauliflower; sometimes pumpkins, melons.</td>
</tr>
<tr>
<td>PEST</td>
<td>VEGETABLE</td>
</tr>
<tr>
<td><strong>APHIDS</strong></td>
<td>Most vegetables.</td>
</tr>
</tbody>
</table>
**BEAN WEEVIL**  
Beans.  
Larvae in seeds.  
Summer – Autumn.  
Will breed in dry beans in garden.

**BEET WEBWORM**  
Beetroot; silver beet.  
Ragged holes in leaves; bright green caterpillar, up to 12 mm long.  
Most active in Summer.  
Weeds harbour bugs; remove.
<table>
<thead>
<tr>
<th>PEST</th>
<th>VEGETABLE</th>
<th>SYMPTOMS</th>
<th>SEASON</th>
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<tbody>
<tr>
<td>CABBAGE WHITE BUTTERFLY</td>
<td>Brassicas.</td>
<td>Holes in leaves; velvety green sluggish caterpillar up to 30 mm long.</td>
<td>Spring – Summer.</td>
<td>Big white butterfly.</td>
</tr>
<tr>
<td>CLUSTER CATERPILLAR</td>
<td>Many plants; prefer brassicas, strawberries.</td>
<td>Egg mass on underside of leaves; many tiny grubs; leaves skeletonised, then holed; grey-green caterpillars, up to 50 mm long.</td>
<td>Summer – Autumn, Autumn – Winter on strawberries.</td>
<td>Appearance may vary.</td>
</tr>
</tbody>
</table>
COON BUG

Some vegetables.
Plants wilt from loss of sap; fruits toughen and discolour.
Most abundant in warm weather.
Breeds in marsh-mallows and hogweeds.

CORN EARWORM

Many plants; prefer sweet corn.
Holes in leaves and damage to cobs.
Spring – Autumn.
Caterpillar similar to native budworm.
**CUTWORM**

Most vegetables.

Young plants wilting; stems attacked near ground level; caterpillar, up to 35 mm long.

Year round, most damaging Spring and Autumn.

Caterpillar; nocturnal; look in surrounding soil.

**DIAMOND-BACK (CABBAGE) MOTH**

Brassicas.

Tunnels in leaves; patches on underside of leaves eaten, leaving only transparent film on top, bright green caterpillar, up to 12 mm long.

Most active in warm weather.

Small caterpillar.
EGGFRUIT CATERPILLAR

Egg plants.
Small holes near fruit stalk; caterpillars up to 25 mm long inside fruit.
Summer – Autumn.
Difficult to control inside fruit; aim to kill larvae as they hatch.

GARDEN WEEVIL; WHITEFRINGED WEEVIL

Many plants; prefer asparagus, beetroot, peas, potatoes, silver beet, spinach, sweet potatoes, carrots.
Stems and foliage chewed (adult) and boring into tubers (larval).
Adults Spring – Summer; Larvae Winter – Spring.
Chewing insect; nocturnal.
GARDEN WEEVIL; WHITEFRINGED WEEVIL (continued)

Report Black Vine Weevil (below).

GRASS-HOPPERS AND LOCUSTS

All plants.

Plants chewed or skeletonised.

Summer – Autumn.

Can come in large numbers.
GREEN VEGETABLE BUG
Most plants: beans, tomatoes, potatoes, peas, silver beet, cabbage, cauliflower, pumpkin, corn.
Plants react in different ways: beans shrivel, become deformed; kernels of corn shrivel; tomatoes hard, cory growths appear where the fruit has been pierced.
Most active in Summer.
Sap sucker; weeds harbour bugs; remove; if plants are affected, remove straight after harvest.

LEAF EATING LADYBIRDS
Some vegetables including tomatoes, curcurbits, potatoes.
Leaves skeletonised; pupae at underside of leaves; look like common ladybirds but one has 26 spots and one 28 on a yellow background.
More abundant in warm weather.
Breed on weeds such as deadly nightshade; larvae are covered with black spines.
**LEAFHOPPERS**

*Vegetable*: carrots, potatoes, tomatoes, lettuce.

*Symptoms*: Leaves mottled; tiny green insects which fly when disturbed.

*Season*: Spring – Summer.

*Comment*: Transmitters of viruses.

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**LOOPER CATERPILLAR**

*Vegetable*: favours potatoes, beans, tomatoes and peas.

*Symptoms*: Attacks foliage and sometimes flowering and fruiting parts; caterpillar up to 35 mm long.

*Season*: More abundant in warm weather.

*Comment*: Moves by a distinct looping action.
I N S E C T S

LUCERNE FLEA

Some vegetables: peas, potatoes, beans. Small irregular patches on leaf, sometimes lower surface; insect is dumpy looking, wingless up to 2 mm long, green or greenish yellow.

May – October.

Remove capeweed from your garden.

MOLE CRICKETS

Sweet potatoes.
Holes in tubers.

Spring and Autumn.

Live underground; come out on warm nights to feed; fly to mate.
**NATIVE BUDWORM**

**VEGETABLE**

Most plants starting to fruit: prefer beans, peas, tomatoes.

**SYMPTOMS**

Holes in pods; greenish caterpillar up to 35 mm long.

**SEASON**

Year round, most damaging Spring.

**COMMENT**

Caterpillar.

---

**NEMATODES**

**VEGETABLE**

Most vegetables.

**SYMPTOMS**

Lesions on roots; stunted plants.

**SEASON**

All year, but more prominent in warmer seasons.

**COMMENT**

Report Potato Cyst Nematode (below)
<table>
<thead>
<tr>
<th>PEST</th>
<th>VEGETABLE</th>
<th>SYMPTOMS</th>
<th>SEASON</th>
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<tbody>
<tr>
<td><strong>ONION MAGGOT</strong></td>
<td>Beans, onions, cauliflower curds.</td>
<td>Seedlings die; seed fail to germinate; maggots at roots, maggots on curds.</td>
<td>Most active, Spring - Autumn.</td>
<td>Lays eggs in organic matter; dig in well before planting.</td>
</tr>
<tr>
<td><strong>PEA WEEVIL</strong></td>
<td>Peas.</td>
<td>Foliage and flowers of flowering peas eaten by adults; larva in green pea seeds.</td>
<td>Spring and Summer.</td>
<td>Only lays eggs into green peas.</td>
</tr>
<tr>
<td>PEST</td>
<td>VEGETABLE</td>
<td>SYMPTOMS</td>
<td>SEASON</td>
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<tr>
<td>POTATO MOTH</td>
<td>Potatoes.</td>
<td>Leaves chewed; stems hollowed and tunnels in tubers.</td>
<td>Summer – Autumn</td>
<td>Will attack exposed tubers; keep crop moist and covered.</td>
</tr>
<tr>
<td>REDLEGGED EARTH MITE</td>
<td>Most vegetables.</td>
<td>Seedlings turn pale; tiny black mites with red legs.</td>
<td>Winter – Spring</td>
<td>Mites which cut tissue and suck oozing sap; breed on clovers, so remove weeds surrounding the garden.</td>
</tr>
</tbody>
</table>
# Insects

**Rutherglen Bug**

Many plants, prefer brassicas, strawberries, lettuce.

Malformed fruit on strawberries, “blinding” amongst cauliflower and broccoli.

- **Spring – Summer.**
- Sap sucking insects; breed in weeds, keep garden clean to prevent.

---

**Snails and Slugs**

Most vegetables.

Slimy tracks; holes in leaves.

- **All year (move during rainy periods).**

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<th>Symptoms</th>
<th>Season</th>
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<td>Rutherglen Bug</td>
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<tr>
<td>Small pointed snail</td>
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<tr>
<td>Vineyard snail</td>
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<tr>
<td>White Italian snail</td>
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<tr>
<td>Slug</td>
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*Images of Rutherglen bug, Small pointed snail, Vineyard snail, White Italian snail, and Slug.*
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<tr>
<th>PEST</th>
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<tr>
<td><strong>SWEET POTATO LEAF MINER</strong></td>
<td>Sweet potatoes.</td>
<td>Small, dark reddish to black grub up to 10 mm long.</td>
<td>More abundant in warm weather.</td>
<td>The grub eats plant tissue between the upper and lower leaf surfaces, leaving a transparent papery ‘window’ in the leaf.</td>
</tr>
</tbody>
</table>

**THRIPS**  
Cucurbits, onions, pepper, tomatoes, onions, garlic, beans, cabbage, celery.  
White streaks on leaves; tiny insects.  
All year, especially late Spring.  
Small insects who rasp the surface of leaves and suck juice; transmit viruses; vary in colour from yellow to black.
TIGER MOTH

Most vegetables. Foliage chewed; hairy black and white caterpillar. Late Winter and Spring.

TOMATO RUSSET MITE

Tomatoes. Leaves turn shiny and bronze, then die. Most active in warm weather. Torpedo shaped microscopic creature; creamy white or greyish white, not visible with the naked eye.
## TWO-SPOTTED MITES

**PEST**

Some vegetables: asparagus, peas, beans, curcurbits, eggplants, globe and jerusalem artichokes, okra, parsnip, strawberries, tomatoes, capsicums.

**SYMPTOMS**

Yellow stippling on leaves; webbing, mites mainly on underside of leaves; plants can be stunted and reduced yield.

**SEASON**

Warmer months, prefer dry and hot conditions.

**COMMENT**

Mites which cut tissue and suck oozing sap.

Report European Red Mite (rarely occurs on vegetables)

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## VEGETABLE BEETLE

**PEST**

Some vegetables.

**SYMPTOMS**

Ringbark seedlings at night.

**SEASON**

Spring – Autumn.

**COMMENT**

Larvae; look like wireworms.
**VEGETABLE WEEVIL**

Brassicas: cauliflower, cabbage, brussel sprouts, turnips, broccoli.

Stems and foliage chewed (adult and larva).

Adults Spring - Summer, Larvae Winter - Spring.

Chewing insect; nocturnal.

*Report Black Vine Weevil (right)*

**WIREWORM**

Some vegetables: seedlings, potatoes, onions and other fleshy underground parts.

Seedlings damaged; occasionally bore into in tubers.

All year.

Can live underground as larva for years; beetle is non-damaging; also called “Clickbeetle”.

*Wireworm*
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<th>P E S T</th>
<th>C O M M E N T</th>
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<tr>
<td>MOST VEGETABLES</td>
<td>Seedlings die before they emerge or after. In the latter case, rot develops on stem and constricts stems near soil surface; stems are weakened and plants collapse.</td>
<td>All year but mainly in wet conditions.</td>
<td>DAMPING OFF: CAN BE CAUSED BY RHIZOCTONIA, FUSARIUM OR PYTHIUM.</td>
<td></td>
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</table>

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<tr>
<th>V E G E T A B L E</th>
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<th>S E A S O N</th>
<th>P E S T</th>
<th>C O M M E N T</th>
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<tr>
<td>MANY VEGETABLES</td>
<td>Soft brownish water rot develops, mainly on stems, followed by a fluffy white growth and small, black pebble-like bodies.</td>
<td>Spring – Autumn.</td>
<td>SCLEROTINIA</td>
<td>Carries over from one season to the next.</td>
</tr>
</tbody>
</table>

_Damping off Rhizoctonia sp._

_Sclerotinia rot_
**CHOCOLATE SPOT (BOTRYTIS)**

Fungal development; favoured by wet conditions.

**BROAD BEANS**

Brown spots on leaves; streaks on stalks.

Autumn – Spring.

**RUST**

Fungal infection; favoured by wet conditions.
YELLOW SPOTS ON LEAVES DEVELOPING INTO BROWN PUSTULES.

WARM, MOIST CONDITIONS, MOST SERIOUS IN BEANS HARVESTED IN AUTUMN AND WINTER.

BEAN RUST

Fungal infection; starts in older plants on lower leaves and spreads upwards.

VEGETABLE

SYMPTOMS

SEASON

PEST

COMMENT

FRENCH AND RUNNER BEANS

Brown spots all over plants.

Year round, most damaging Spring and Autumn.

ASCOCHYTA SPOT

Fungus; can be seed borne: burn affected material as fungus can carry over in soil for years.

FRENCH AND RUNNER BEANS

Yellow spots on leaves developing into brown pustules.

Warm, moist conditions, most serious in beans harvested in Autumn and Winter.

BEAN RUST

Fungal infection; starts in older plants on lower leaves and spreads upwards.
FRENCH AND RUNNER BEANS
Light and dark mosaic pattern on leaves.

BEAN YELLOW MOSAIC VIRUS
Control aphids, do not plant seeds from infected plants.

BEETROOT
Small spots on leaves; centres of spots sometimes fall out.
Warm, moist conditions.

LEAF SPOT
Several fungi result in shothole appearance: infection results from windblown and/or water splashed spores.
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<th>BRASSICAS</th>
<th>VEGETABLE</th>
<th>BRASSICAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYMPTOMS</td>
<td>Dark spots, concentric black rings.</td>
<td>SYMPTOMS</td>
<td>Greyish spots on leaves; base of stem blackened.</td>
</tr>
<tr>
<td>SEASON</td>
<td>Humid conditions.</td>
<td>SEASON</td>
<td>Humid conditions.</td>
</tr>
<tr>
<td>PEST</td>
<td>ALTERNARIA SPOT</td>
<td>PEST</td>
<td>BLACKLEG</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Fungal infection; results from wind-blown or water splashed spores, can be seed borne, remove diseased plant remains.</td>
<td>COMMENT</td>
<td>Fungus; can be seed borne: remove diseased plant remains.</td>
</tr>
</tbody>
</table>
BRASSICAS

Yellow marks on leaf margins, becoming brown and withered, spreading.

Warm wet weather.

BLACK ROT

Bacteria; can be seed borne; moves freely in water and infect leaves near wounds or where moisture collects.

VEGETABLE

SYMPTOMS

SEASON

PEST

COMMENT

BRASSICAS

Yellowish stunted plants; malformed ‘clubbed’ roots.

Warm weather.

CLUB ROOT

Fungus; avoid growing brassicas in same patch for 7 years; lime soil.
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<tr>
<th>VEGETABLE</th>
<th>BRASSICAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYMPTOMS</td>
<td>Yellowish spots on leaf surfaces; downy growth on undersides of spots.</td>
</tr>
<tr>
<td>SEASON</td>
<td>All year but mainly in cool wet condition.</td>
</tr>
<tr>
<td>PEST</td>
<td>DOWNY MILDEW</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Fungus; do not plant seedlings with yellowed or withered areas on leaves; remove mildew-susceptible weeds near crop (such as shepherds purse).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VEGETABLE</th>
<th>CARROTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYMPTOMS</td>
<td>Elongated spots on leaves and leaf stems; spots may join; leaves wither and die.</td>
</tr>
<tr>
<td>SEASON</td>
<td>Most active in cool, wet weather.</td>
</tr>
<tr>
<td>PEST</td>
<td>LEAF BLIGHT</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Two fungi: <em>Alternaria dauci</em> attacks older leaves and <em>Cercospora carotae</em> attacks younger leaves: can be seed borne and can survive in crop remains.</td>
</tr>
</tbody>
</table>
DISEASES

CEleri
Small circular spots on leaves with small black fruiting bodies; elongated spots on stems.
Cool, moist weather.

LEAF SPOT OR EARLY AND LATE BLIGHT
Caused by two fungi: *Cercospora* (early blight) and *Septoria apicola* (late blight): do not replant celery on same area for 3 years, burn infected trash.

CURCURBITS
Greyish white patches on upper leaf surfaces; leaves turn brown and shrivel.
Warm, moist conditions.

POWDERY MILDEW
Fungus; grow curcurbits in a sunny spot in well drained soil.

VEGETABLE SYMPTOMS

VEGETABLE SEASON PEST COMMENT

29 Celery leaf spot

POWdery mildew

Powdery mildew
### CURCUBITS

**SYMPTOMS**
Mosaic patterns on leaves; distortion, stunting.

**SEASON**
During aphid season.

**PEST**
**CUCUMBER MOSAIC VIRUS**
Virus; spread by aphids from diseased to healthy plants.

### LETTUCE

**SYMPTOMS**
Yellow patches on leaf surfaces; greyish-white downy growth on underside.

**SEASON**
Present throughout year, attacks in cool moist weather.

**PEST**
**DOWNY MILDEW**
Fungus; do not plant seedlings with withered patches on leaves; avoid overcrowding to enable good air ventilation.
**LETTUCE**

Plants become yellow and stunted. During aphid season.

**NECROTIC YELLOWS VIRUS**

Virus; spread by an aphid which breeds on common thistle.

**LETTUCE**

Dead, brown rings or spots develop on younger leaves; leaves turn yellow and droop. Spring and early Summer.

**SPOTTED WILT VIRUS**

Virus; spread by thrips; symptoms similar to necrotic yellows virus.
<table>
<thead>
<tr>
<th>VEGETABLE</th>
<th>ONIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYMPTOMS</td>
<td>Purplish to greyish felt-like patches on leaves; Leaves wither and droop from tips.</td>
</tr>
<tr>
<td>SEASON</td>
<td>Wet weather, cool nights with relatively warm days.</td>
</tr>
<tr>
<td>PEST</td>
<td>DOWNY MILDEW</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Fungus; use healthy seeds, remove and burn crop residues and rotate crops.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VEGETABLE</th>
<th>PARSNIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYMPTOMS</td>
<td>Small, irregular brown spots with dark margins on leaves; red brown areas, forming craters on crowns.</td>
</tr>
<tr>
<td>SEASON</td>
<td>Most active in Winter, favours cool, wet weather.</td>
</tr>
<tr>
<td>PEST</td>
<td>CANKER AND LEAF SPOT</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Fungus; can survive in storage.</td>
</tr>
<tr>
<td>VEGETABLE</td>
<td>SYMPTOMS</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td>PEAS</td>
<td>Small purple spots on leaves and stems; tops can die, particularly from damage at soil line. Generally develops during cool, wet weather.</td>
</tr>
<tr>
<td>BLACK SPOT AND FOOT ROT</td>
<td>Several fungi; grow in sunny, well drained positions; use healthy, fungicide treated, seeds; remove and burn crop residues and rotate crops.</td>
</tr>
<tr>
<td>PEAS</td>
<td>Irregular yellowish patches of leaf surfaces; bluish-white downy growth on underside of patches. Mild, humid weather.</td>
</tr>
<tr>
<td>DOWNY MILDEW</td>
<td>Fungus; use healthy fungicide treated seeds; spray with a suitable fungicide from the first signs of the disease; remove and burn crop residues and rotate crops.</td>
</tr>
</tbody>
</table>
PEAS
Foliage turns yellow from base up; leaves wilt; plants stunted; lower stem brick red.

FUSARIUM WILT
Fungus; use healthy seeds; remove and burn crop residues and rotate crops.

PEAS
White powdery patches on older leaves, spreading upwards.

Mild, humid weather.

POWDERY MILDEW
Fungus; remove and burn crop residues and rotate crops.
### POTATOES

**Brown-black spots on lower leaves, spreading upwards.**

Wet weather and heavy dews.

**EARLY BLIGHT (TARGET SPOT, BLACK SPOT)**

Fungus; can spread from foliage to the tubers; do not leave tubers in ground after the plants mature; control with fungicide.

![Early blight or target spot](image)

### POTATOES

**Small, raised pustules on tuber surfaces; These split to expose black powdery mass of spores.**

Cold, wet soil.

**POWDERY SCAB**

Fungus; spores can remain dormant in soils for many years; get healthy seeds and rotate crop.

![Powdery scab](image)
<table>
<thead>
<tr>
<th>VEGETABLE</th>
<th>SYMPTOMS</th>
<th>SEASON</th>
<th>PEST</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTATOES</td>
<td>Young shoots die before emerging; older stems can be ring-barked; aerial tubers form, tubers can be infected.</td>
<td>Cold, wet soil.</td>
<td>RHIZOCTONIA</td>
<td>Fungus; treat seed potatoes with fungicide before planting; rotate, prepare beds well before planting to let organic matter break down.</td>
</tr>
</tbody>
</table>

**VEGETABLE**

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
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</tr>
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<tbody>
<tr>
<td>POTATOES</td>
<td></td>
<td>POTATO VIRUS X AND Y</td>
<td>Virus; potato y, can cause range of symptoms from mild mottling to severe yellowing and premature death.</td>
</tr>
</tbody>
</table>

If potato virus y is suspected report to Pest and Disease Information Service.
DISEASES

POTATOES

Edges roll inwards and thicken; plants stunted. During aphid activity.

POTATO LEAF-ROLL VIRUS

Virus; transmitted by aphids; buy healthy tubers for planting and control aphids.

POTATOES, TOMATOES

Healthy potatoes showing elongation and pointed ends; tomato plants showing purpling and chlorosis, down curling, stunting and distortion. Prefers warm conditions and high light intensity.

POTATO SPINDLE TUBER VIROID

Virus: highly infectious, spreads quickly through crops, can be seed borne.

If suspected, report to Pest and Disease Information Service.
DISEASES

SILVER BEET

Small spots on leaves; centres sometimes drop out.

Warm, moist conditions.

LEAF SPOT

Several fungi; same as beetroot leaf spot; not usually damaging in home gardens.

SILVER BEET

Seedlings die; leaves develop spots; roots and stems rot.

Air temperatures higher than 15˚ C encourage rotting.

LEAF AND STEM ROT

Fungus; can be seed borne: rotate crops and fertilise well; avoid over-watering.
DISEASES

TOMATOES

Leaflets wither on one side of leaf from base up; fruits can develop spots with halos.

Late season.

BACTERIAL CANKER

Bacterium; can be seed borne: rotate crops; burn infected plants; use sterile (including use of new tomato stakes) practices to avoid infecting healthy plants.

Tomato bacterial canker

TOMATOES

Small, irregular, greasy black spots on leaves and stems.

Most common in Winter.

BACTERIAL SPECK

Bacterium; can be seed borne: rotate crops; burn infected plants; use sterile practices (including new stakes) to avoid infecting healthy plants.

Bacterial speck leaves

Bacterial speck fruit
### TOMATOES

**Symptoms:** Dark brown spots with concentric rings and yellow margins on leaves from base up.

**Season:** Warm moist conditions.

**Early Blight (Target Spot)**

Fungus; use healthy plant material; burn diseased plant remains; control from early onset of disease with fungicides.

### TOMATOES

**Symptoms:** Leaves turn yellow and wilt from base up; sometimes only one side of branch affected.

**Season:** Most common in warm weather.

**Fusarium Wilt**

Fungus; use healthy plant material; burn diseased plant remains; rotate crop.
DISEASES

TOMATOES

Plants wither and wilt from base up; stunted.
Cooler weather, more common south of Bunbury.

VERTICILLIUM WILT

Fungus; use healthy plant material; rotate crop.

TOMATOES

Shiny bronze spots on youngest leaves;
plants shrivel and die.
Symptoms show more in cooler conditions.

SPOTTED WILT VIRUS

Virus; spread by thrips, control pest;
destroy infected material.
VEGETABLE SYMPTOMS

TOMATOES

Fruit has yellowish markings; mosaic patterns, mottling and distortions on leaves and fruit.

TOBACCO AND TOMATO MOSAIC VIRUS

Virus; transmitted mechanically; use sterile practices; avoid smoking.
ACKNOWLEDGEMENTS

Photos by: Western Australian Department of Agriculture, Victorian Department of Primary Industry, Marilyn Steiner (Agriculture New South Wales), Integrated Pest Management Technologies, Infostate (Queensland Department of Primary Industries)
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