

# Dealing with Pests and Diseases Organically

*MOST GARDEN PEST CONTROL IS UNNECESSARY, some cause more problems than they solve, be patient*

*PESTICIDES can increase your pest problems by killing useful insect predators like lacewings, hoverflies, praying mantis ladybird larvae. There are just as many beneficial bugs in the garden as harmful ones.*

## **Make your plants more pest and disease resistant by:**

- *Avoiding high-nitrogen fertilizers - whether artificial or in the form of too much chicken manure or urine. They all create soft, green sappy growth which attracts pests.*
- *Using compost and mulch - through various interactions, that we have already looked at, they increase plant resistance to pests and diseases.*
- *Using an interactive design - plant year-round flowering shrubs and flowers to attract birds and other insect predators, particularly native species. Incorporate a water feature to encourage frogs.*
- *Thoughtful plant selection - grow plants suited to your area. Plants that struggle to survive out of their climatic zone are always more prone to pest and disease attack. Collect your own seeds from healthy plants or buy organic seeds that are non-hybrid.*
- *Don't panic - most pests will worry you more than the plant. Pests usually disappear in a couple of weeks. If they don't, try some of the controls listed below.*



## **Aphids, bugs, cicadas, scale, thrips, mites, leafhoppers**

**Damage:** *Skeletonised foliage; leaves brown and curled at the edges, leaves which appear mottled or pitted; spotted light and dark green leaves*

**Control:** *Encourage birds and frogs. Clean up sheltering weeds below trees. Get rid of overripe fruit and vegetables as these can attract pests. Try soap and garlic sprays (add some chilli). For scale try half cup of cooking oil, 2 drops detergent and 3 cups hot water - use when cool - this mixture need brisk beating to form an emulsion - do not use on sunny days (it will cook the leaves). This is an effective substitute for the commercially available "White Oil" which is petroleum based.*

## **Earwigs, grasshoppers, caterpillars, leaf-eating ladybird**

**Damage:** *Holes in the leaves, ragged leaves – black or green droppings*

**Control:** *Encourage birds and frogs. Pick them off by hand or hose them off. Sprinkle on dry wood ash. Spray Dipel (a bacterium that only kills caterpillars). Homemade sprays from chamomile and pyrethrum flowers.*



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## Fruit Fly

**Damage:** Look for small 'maggots' and brown rotting patches. Any fruit or soft vegetables can be attacked by fruit fly.

**Control:** Make sure every bit of fallen fruit, every squashy, overripe tomato is picked up every day. Either feed them to the animals or place them in an airtight bag in the sun until the fruit decomposes.



Avoid late maturing varieties that fruit when large numbers of fruit fly are around.

**Baits and traps.** Take an empty plastic drink bottle. Cut off the top at the shoulders and invert so that the top is sticking into the bottle, and tape the edges firmly. Fill the bottle one-third full of bait, cover the hole with mosquito netting and suspend around the garden in trees or on stakes.

**Bait Recipes:** Homemade ginger beer - Boil 2 litres of water, 2 sliced lemons, sliced piece of fresh ginger and 2 cups raw sugar add a pinch of yeast when warm.

Sugar, bran and banana skin in warm water with half a teaspoon of Vegemite.

**Dak Pots:** - these are a commercially available trap that attract male fruit flies - leaving the female unfertilised so she cannot lay eggs in your fruit. Important thing to remember is that they have to be placed in the trees early in the season.

## Fungal, bacterial and viral diseases

**Damage:** Look for whitish mildew, rust spots and blemishes and fruit rot

**Control:** Make sure food garden is in full sun - so that wet plants can dry out and they have a free flow of air - sunlight discourages fungal diseases. Always try to water in the morning and not on the foliage of vulnerable plants. Spray plants with a garden tea made from soaked seaweed/manure/comfrey leaves. Sprinkle with wood ash. Rotate crops.

## Root Rot

**Damage:** Sudden death of plant for no apparent reason. Plants yellowing from the top and die back suddenly.

**Control:** Feed it with a foliar spray while you mulch with compost. Make sure drainage is adequate. Pull out badly damaged plants to stop disease spreading. Interplant with others that have strong smelling roots (marigolds, coriander, basil) Shallow, poor soil and competition with tree roots leaves plants struggling to survive - make sure you keep topping up with mulch. If you suspect poor drainage - add gypsum - this breaks up clay soils.

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See – Recommended reading and resource sheet for references on pest and disease control.

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