



## GOING ORGANIC

Organic food tastes better and is safer for your family and the environment. Environmental Scientist and Sustainability Consultant Josh Byrne explains the benefits of 'going organic', as well as what's involved in creating and managing a productive organic garden.

### WHY GROW YOUR OWN FOOD?

Planting some veggies in the home garden essentially creates your own supply of fresh and nutritious produce – once you've tasted home-grown veggies there will be no looking back! Some of the attractive reasons to grow your own food include:

- You get access to cheap, great tasting, fresh ingredients right at your doorstep... and it's lots of fun! It can also save you money – you'll be surprised at how productive a home veggie patch can be and soon notice that you don't buy as much from the greengrocer.
- There are attractive health benefits if you grow your veggies organically, that way you and your family get to eat food that is free from chemical residues.
- The environmental benefits are important as well – growing your own veggies reduces the huge quantities of artificial fertilisers, pesticides and herbicides used in large-scale monoculture farming, and it also reduces the energy consumption and pollution caused by having to transport food over long distances.

There are a number of simple options for growing veggies at home to suit different needs, ranging from a large plot in the garden to pots on the balcony. For more info on how to go about it, click on the 'Starting a Vegetable Garden' link from the *Living Smart* website:

[www.dpi.wa.gov.au/livingsmart/15729.asp](http://www.dpi.wa.gov.au/livingsmart/15729.asp)

All in all establishing an organic veggie garden is very rewarding – and don't forget that you can share surplus produce with friends and neighbours, which is a great way to build community spirit.

### WHY IS ORGANIC GARDENING IMPORTANT?

There are some compelling reasons for going organic in your garden:

- First and foremost, a garden should be a safe haven for your family and nature. Surely there's no place for poisonous pesticides to be sprayed where children play?
- Plants thrive in healthy soil rich in organic matter, and birds, lizards, frogs and predatory insects can be effective in keeping pests under control if given the chance. Weeds and many common garden pests and diseases can also be easily dealt with using simple and inexpensive organic control methods if we stop, observe and think about how to go about it.

- Over-use of synthetic fertilisers in conventional gardening leads to nutrient contamination of groundwater, wetlands and waterways, which in turn leads poor water quality and algal blooms. Likewise chemical pesticides, fungicides and herbicides build up in soil, animal tissue and end up in waterways where they impact on other life forms.

### HEALTHY SOIL MEANS HEALTHY PLANTS

The secret to successful organic gardening is in the soil!

#### Improving soil structure

Food crops, as well as hungry ornamental plants, thrive in free draining soil that can retain moisture and nutrients. To get the best results, your soil should be pH neutral to slightly acidic (pH 6-7) and contain plenty of organic matter. If you have heavy soil, add gypsum and compost and consider mounded beds to ensure adequate drainage. If your soil is sandy, add bentonite clay and organic matter in the form of compost, manure and mulch.

#### Improving soil fertility

In organic gardening we are actually feeding the soil rather than the plants. The best way to improve the fertility of your soil is to incorporate a diverse range of materials including compost, manures, green manures and rock minerals. Soil microbes such as bacteria, protozoa and fungi are the real drivers behind healthy soil. They convert organic matter into humus which leads to improved soil structure, water and nutrient retention, and make mineral nutrients available to plants.

### WEEDS

A convenient definition of a weed is a plant that grows on its own accord where you don't want it to. Weeds may compete with your plants for water, nutrients and light, and can also harbour pests and disease. Keeping weeds under control therefore becomes an important strategy in organic gardening.

#### Understanding weeds & where they come from

Weeds are colonisers – they are quick to establish in areas that have been disturbed. If you minimise disturbance in your garden then weed problems will be significantly reduced. Here are a few measures you can take around the garden to keep weeds under control:

- Cover bare soil with mulch or establish a dense layer of shrubs and ground covers.

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- Remove seed heads before they mature to reduce their numbers in the following year.
- Install 40cm deep vertical weed barriers to prevent running grasses like couch and kikuyu from invading garden beds.
- When composting weedy material, make sure that it heats up sufficiently (around 70 degrees) so as to kill off any seed.
- Be careful not to accidentally reintroduce weeds into your garden. Only buy manures, soil and mulch from a reputable supplier who can guarantee they are weed free.
- Establish wind breaks around your garden to help reduce seed blowing in from your neighbour's garden.

## Organic weed control

Often the best way to control small outbreaks of soft weeds is to simply pull them out. If you feel overwhelmed by the task, however, then don't despair – there are safe and effective alternatives to the conventional poisonous sprays. These organic weed control measures include boiling water, ammonia, pine oil, chooks, solarising and sheet mulching.

## PESTS & DISEASES

Pests and diseases are a normal part of every garden. The reality is that we can never totally eradicate these problems, but we can certainly be clever about how we manage them. Managing pests and diseases organically is based on an integrated and hierarchical approach, which is explained in more detail below:

### Balance through diversity

Creating a balanced garden environment with natural checks and balances significantly reduces the likelihood of a major problem. Natural ecosystems are composed of intricate interrelationships between plant and animal species, resulting in a self regulating balance between pests and predators, disease and resilience. This is what we need to try to replicate in our gardens!

### Cultural control measures

Cultural control involves intentionally disrupting the conditions that would otherwise allow certain pests and diseases to flourish. The key cultural control measures and strategies include:

- Implementing crop rotation in the vegetable garden will help to reduce the build up of diseases in your soil.
- Sanitation involves the removal and destruction of habitat or breeding grounds that allow pests and diseases to build up.

- Companion planting (combining different plant species in the garden) can reduce vulnerability to attack from pests and diseases, which is a greater risk if there are single species planted over large areas.
- Using drip irrigation saves water and reduces the likelihood of foliage fungal disease such as black spot and powdery mildew that are exacerbated by over-head watering.
- Increasing organic content in your soil helps to conserve water as well as nourish your plants and will reduce the likelihood of nematodes.

### Physical control measures

Physical control measures are direct action techniques including traps, barriers, lures or baits and netting. They can be very effective at protecting plants, flowers and fruit by excluding pests, and also help to reduce pest numbers.

### Organic sprays

As a last resort organic sprays and remedies can be used to deal with specific outbreaks or as a preventative measure when the risks of certain pest and disease activity are particularly high. These should be viewed as a last resort because their use can have a significant impact on beneficial insects too.

Remember that many organic concoctions can still be dangerous and need to be treated with due caution. Some commonly used ingredients such as pyrethrum are poisonous (although it rapidly breaks down) and chillies can be very painful. Always label containers containing sprays and keep them out of the reach of children.

## MORE INFORMATION AND IDEAS ON 'GOING ORGANIC'

Byrne, Josh (2006). *The Green Gardener*, Penguin Group, Camperwell, Victoria

McMaugh, Judy. (2000). *What garden pest or disease is that? Organic and chemical solutions for every garden problem*, New Holland Publishers, Frenchs Forest, NSW

ABC's *Organic Gardener Magazine*

*Organic Growers Association of Western Australia* – [www.ogawa.org.au](http://www.ogawa.org.au)

