Beginners Organic Vegie Garden

Kimbriki Eco House & Garden

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Learn the basic skills to grow some of your own organic herbs and vegetables. Food grown organically is healthier for you and your family.

Introduction – What is 'Organic' Vegie Gardening?

Organic gardening is about understanding the vital role of all the life forms operating in healthy soils. It is the diversity of life forms in the soil which gives plants their natural immunity to insect and disease attack. This life in the soil, which is also the powerhouse for the natural fertility system, will only be healthy and effective if the soil has adequate levels (and diversity) of organic matter (OM), decomposing into HUMUS.

Organic gardeners use composts, mulches, manures, worm products, seaweed, etc as their source of nutrient fertilisers. Organic vegie gardeners **do not** use any poisonous chemicals such as insecticides, herbicides, fungicides, etc. The word 'cide' comes from the Latin and means 'to kill or death'. Organic gardening also means no longer using any 'synthetic' acid soluble fertilisers.

One of the most satisfying and heart-warming things you can do in your life is to help your family stay healthy and feed them even a small amount of beautiful home grown organic food

With some clever observation of your own garden space, to determine the areas with more or less sunlight and warm little 'pockets' (microclimates), you will amaze yourself at what you can grow.

Your soil is a living creature. Learning how to 'feed' your soil, (which 'feeds' your plants and then 'feeds' you) is the **key** to becoming an organic gardener.

Organic Gardening – Things to Consider

- The KEY overriding principles we work with are called the A.D.A.M Principles. Aliveness, Diversity, Aeration and Moisture (see separate sheet for detailed explanation of A.D.A.M).
- Soil
- Light
- Heat
- Protection
- Vertical and horizontal space
- Moisture and air relationships
- Planting
- Feeding your soil/plants
- Unwanted visitors
- Harvesting/picking and eating your produce
- Introduction to self-watering / wicking bed gardens

The soil

Everything we eat comes directly or indirectly from the soil. Organic vegie and herb growing is 'all about the soil'. You will notice throughout these notes many comments relating to the vital role of the diversity of life in the soil.

- Most vegies need a good depth of soil, at least 30 - 40cm deep.
- Drainage/aeration must be good. Any sour smell (anaerobic activity) indicates poor drainage.
- Water regularly. Never allow the soil to completely dry out (consider using wicking bed gardens).
- Use mulches regularly on the surface.

Light

- The amount of direct light will be one of the biggest factors to consider.
- How much direct light is available in your space during the different seasons of the year? Consider having gardens in different places during the year (if you have the space) to utilise the most appropriate light.
- Use mirrors or light coloured boards to reflect light into darker areas.
- A general rule of thumb is "**the darker the foliage – the less light the plant needs**".
- Most edible plants will need a minimum of 3-4 hrs of sunlight per day.

Heat

- What is the heat requirement of the plant you are considering?
- Are there any walls that will act as a heat sink to keep plants growing for longer periods as the weather becomes cooler?
- Is there too much heat from the afternoon sun in certain positions? e.g. summer.

Protection

- Think about what plants need protection from, e.g. hot afternoon sun, cold and drying winds, animals and children. These factors will influence what plants you grow and how you grow them.

Vertical and horizontal space

- Remember that you often have as much vertical space as horizontal space. Commercial structures for 'vertical gardens' are now available.
- A small trellis either on a wall or in an open space can greatly increase your space to grow climbing plants, e.g. beans, peas, cucumbers, passionfruit etc.

Moisture and air relationships

- The art of ecological gardening is about achieving and maintaining a balance between air and water in ways appropriate to your own local ecosystems.
- This air/moisture relationship is critical for all plants.
- A thin layer of mulch (e.g. lucerne chaff, pea straw, or sugarcane) on the surface, will keep moisture in and allow the soil to breathe better.
- Consider having a small water feature as part of your garden. The water will increase humidity and help to 'balance' your ecosystem.
- Annual plants need to be watered every day or two in hot weather (consider using wicking bed gardens).

Planting (seeds and seedlings)

- Consider planting seeds and seedlings in relation to the cycles of the moon (see 'Moon Planting Calendar').
- You can plant your seeds and seedlings directly into the soil or you can grow them in containers and then transplant them out once they are established. NB, root crops like carrots and beetroots **do not** like being transplanted. They must be planted directly into the soil. Root crops do not like excess nitrogen, so plant them **after** a leaf crop such as lettuce and do not add extra manure or rich compost for root crops.
- Plant small seeds quite shallow (0.5 - 2cm) and bigger seeds more deeply (2 - 4cm).
- Always hold seedlings by the leaves, not the stem, when planting. Plants can grow a new leaf; a squashed stem will kill the seedling.
- If seedlings have long roots, lay the roots along in a planting trench and cover with soil. Do not bunch up the roots down a small vertical hole.
- Always 'firm' the soil down onto the sown seeds and also firm down gently around seedlings.

- If your soil seems a bit tired or not really 'vibrant' then always add a few handfuls of rich organic compost (your own or buy it if you have none) into the hole or trench you are preparing for planting.
- Try to plant seedlings early in the cool of morning or later in the afternoon, not in the extreme heat of a scorching day.
- Always, always, always water-in everything you plant.
- Try and mulch the soil surface between the plants. Mulch ASAP after planting. For annuals, use a high protein mulch, such as lucerne chaff or pea straw.

Feeding your soil/plants (mulching and fertilising)

- Plants need regular feeding. Soil feeding and foliar (leaf) feeding are both important methods.
- Add thin layers of high protein mulch regularly to the soil surface for 'soil feeding', e.g. lucerne chaff, pea straw, sugar cane mulch etc.
- Manures are also of great benefit to maintain garden fertility. Add a handful of compost or cow manure, or a small amount of pelletised chook manure/sqm, as soil feeding every few weeks. Cow manure (CM) is great – dig in 5 litres of CM per sqm of garden, once to twice per year. Poultry and sheep manure are also good but are more concentrated so use less and wait 5-10 days after application before planting.
- Liquid nutrient such as seaweed (e.g. Seasol) and fish emulsions are excellent for 'soil and foliar feeding'. Use as per instructions on the label.
- Spraying diluted fish and seaweed emulsions onto the leaves can also be a lovely 'foliar feeding' tonic to plants. Add a little worm juice (liquid from a worm farm) or compost tea (brown liquid made by stirring a handful of compost in a bucket) to the spray if you can. This helps reduce fungal diseases.
- Most (not all!) vegies and herbs like the soil to have a reasonably neutral range pH. i.e. 6 - 7.5 pH. Add a little dolomite lime or standard garden lime every 3-6 months. Dolomite lime has extra magnesium, which is very beneficial to encourage strong, active beneficial microbial activity in the soil.
- Apply a handful of 'Rock dust' per sqm of garden each year or two, to re-mineralise your soil, plants and YOU!

Unwanted visitors (pest control)

Your plants health is directly related to the diversity of life in the soil. Plants with a healthy immune system will be more resistant to insect and disease attack. Good organic gardeners realise that a small percentage of their plants will be food for insects. Insects are an important part of a balanced system, but we don't want them to take over. Most insects see in the infra-red spectrum and will be attracted to plants with weakened immune systems. Stressed plants emit a different colour of infra-red light. Turn your attention to the soil the plant is growing in, rather than the plant itself.

- Keep the living soil moist, fed (see above section) and mulched. Mulching maintains a more even soil temperature reducing plant stress **(consider using wicking bed gardens)**.
- Your own observation and vigilance is a primary tool.
- Physically removing caterpillars or even aphids etc. can often be all that is needed. Thank them for their 'contribution' then squash them and leave their smell on the affected plants. This can help keep others away.
- You can spray mild soapy water and sour milk on plants to reduce the effect of sucking insects. (e.g. aphids, thrips, mites). 'Dipel' is useful for keeping down the numbers of chewing caterpillars. You can also get 'organic' sprays from nurseries to assist with pest control.
- Prune off any dead or sick leaves from the plants and put them into your worm farm or composting system.

Harvesting, picking and eating your produce!!

- This is one of the most exciting and important aspects of growing your own food.
- Regularly prune off any dead or diseased foliage.
- Try and pick your produce so that you eat at least some of it on the day it is picked.
- Continually pick the 'outer' leaves on leaf vegies such as non-hearting lettuce, spinach, kale etc. Throw any older yellowing leaves into your compost and eat the younger fresher leaves.
- With beans and peas, try and pick off ALL reasonable sized pods every day or two. This ensures that the plants will give you the highest possible yield. If peas, beans or cucumbers are left on the bush too long and get 'too big' the plant 'slows down' and the big pods and cucumbers become quite tough.
- Picking time is also when you really observe what is going on in your garden
  - monitor soil moisture levels (have a scratch around!)
  - look for unwanted visitors
  - notice if more mulch or manure etc. may be needed soon
  - always eat a few things immediately as you pick them. This is BIOGENIC food!

How Your Organic Garden Can Keep You & Your Family Healthy

Benefits of growing your own organic produce

- Health is the key issue here! Our own human health and the health of the ecology, which we are all a part of. Plant tissue eaten either directly from the plant, or within a few hours of picking, is known to have amazing healing qualities. It is called BIOGENIC Food!
- You only get this if you grow it yourself (or raid your friends' gardens!).

Human health issues related to organic vs synthetic growing

- Our main issue is not so much to extend our life span but rather to improve the long-term quality of the years we are alive. During the last 50 years, the average life span in western countries increased by 10 years, which is 13%. Some chronic illnesses like asthma and allergies have increased by 100% in the last 10 years!
- The build-up of organic acid waste is our main problem. Ageing is organic acid waste build up. The most common acid waste products in our body are acetic acid, ammonia, carbonic acid, carbon dioxide, fatty acid, lactic acid and uric acid.
- Foods that we eat will have an effect on the acid or alkaline level in our blood. Some foods are acid 'forming' and other foods are alkaline 'forming'. It is the 'balance' of acid/alkaline that is important, unfortunately most of us have become too acidic. Most degenerative diseases including cancer are more likely to occur in 'acid' bodies.
- The most significant factor to mention here is that organically grown food increases the alkaline forming response in our bodies. Food grown non-organically using highly acidic synthetic fertilisers will cause an acid forming response in our bodies. For very good information on acid and alkaline forming qualities of different foods go to www.huntlycentre.com.au (then click on 'Collison Newsletters' and go to the Sept 2005 newsletter - Acid/Alkaline Balance).

Some Easy Edible Plants to Try

- **Scarlet Runners** or **Purple King Beans** - annuals (grow in spring and summer), or **Peas** - annuals (grow in autumn and winter), when trained on a support, will bear lovely flowers and attractive delicious food.
- **Cucumbers** – annuals (grow in spring and summer), yield well and are a great salad staple.
- **Tomatoes** – annuals (grow in spring and summer), thrive in warm, moist conditions. Tomatoes are 'heavy' feeders so put some manures and maybe some seaweed at the base of the holes and cover with soil before planting. Young roots should **not** be touching the manure or seaweed. Some of the dwarf varieties such as 'Tiny Tim' and 'Yellow Pear' only need a short stake for support.
- **'Non-hearting' lettuces** of different colours – annuals (can be grown all year, if there is no frosts), such as Mignonette and Buttercrunch are easy to grow, give regular supply of small amounts for salad and look beautiful. If you grow a few herbs such as basil, Italian parsley, or chives, you can have an instant gourmet salad.
- **Parsley, Rocket, Spinach and Rainbow Chard** – annuals (grow in spring, summer and autumn), all grow really well in new gardens.
- **Lemon Balm and Mint** - perennials (grow all year), make good 'edge' plants and are lovely for flavouring food and making delicious tea from their fresh leaves. Prune back hard each year.
- **Nasturtiums** – annuals (grow in spring, summer and autumn), also do well and both the leaves and flowers are edible.
- **Lemon Verbena and Pineapple Sage** grow well in moist, well drained and sunny places. Their leaves also make delicious herbal tea. These are both perennial shrubs so plant them in their own space and not in your garden where you want to grow annuals.
- Many '**weeds'** (wild herbs) are also edible (but that's another story!).

Tasting of Edible Flowers

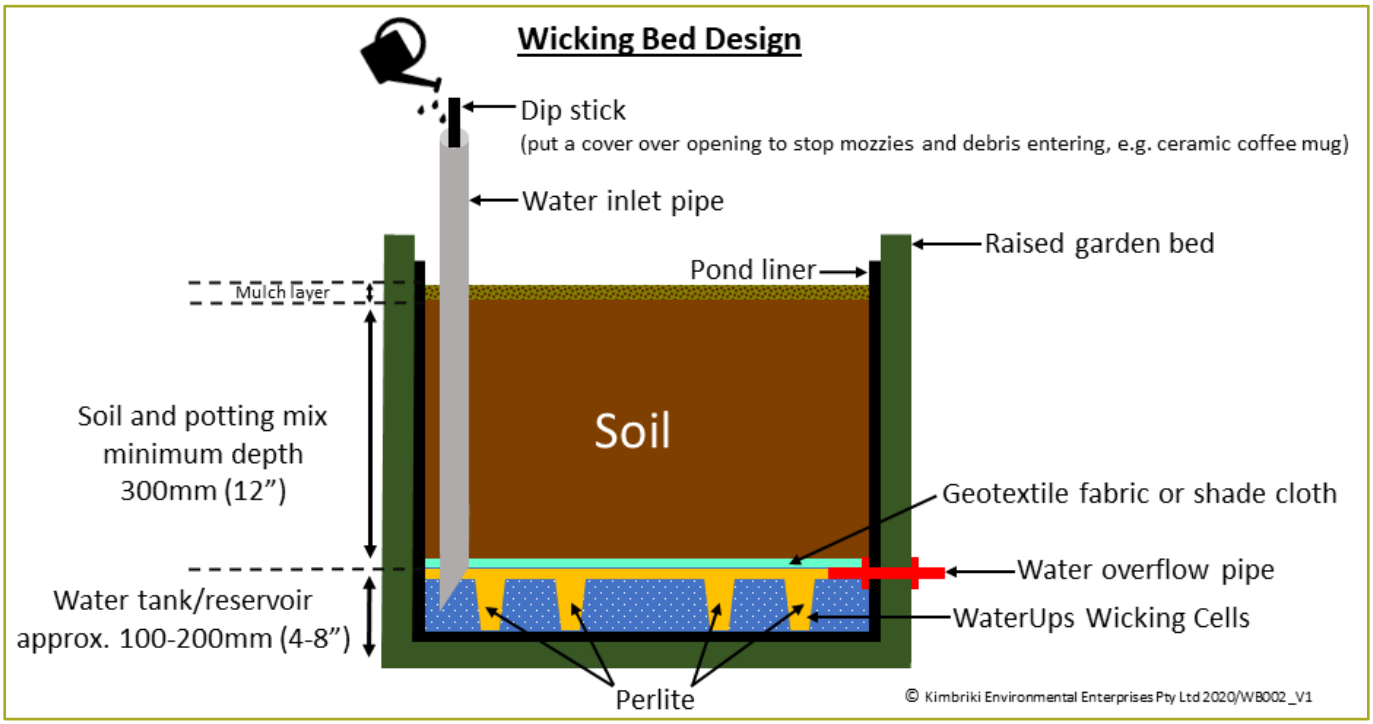
- Many flowers are edible and possibly very important to our health, e.g. violas, pansies, pineapple sage etc. (see separate sheet on 'Edible Flowers').

The Real Difference Between Organic & Non-Organic Food

Copy Peter's diagram from the whiteboard!

Introduction to Self-watering / Wicking Bed Gardens

- Exciting idea for city food gardening.
- What is a wicking bed? Gardens with a water tank at the base.
- Designed so the water 'wicks upwards' into the soil, like a candle wick.
- These gardens are self-watering, great when you are not home.
- There are commercial wicking beds on the market which are great, and you can also learn how to make your own!



Learning more with like-minded people

Consider joining your local Permaculture Group.

Our local one is

Permaculture Northern Beaches

They meet on the 4th Thursday of each month from 7.15pm in the
Narrabeen Tramshed Community Centre
1395 Pittwater Road
Narrabeen NSW 2101

Check events page for the next meeting. All welcome! http://www.permaculturenorthernbeaches.org.au/events/.

Good luck, have fun and enjoy eating your very own produce!

For more information
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email kimbriki@kimbriki.com
or contact via Kimbriki Resource Recovery Centre
phone 02 9486 3512 Monday to Friday