



Small Scale Edible Gardening

Kimbriki Eco House & Garden

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*“Only when the last tree has died, and the last river been poisoned and the last fish been caught,
will we realise that we cannot eat money”
Cree Indian Saying*

Introduction

Small Scale Edible Gardening can be both fun and productive. With some clever observation of your own small space to determine the areas with more or less sunlight and warm little pockets (microclimates), you will amaze yourself at what you can grow.

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

Organic gardening is about understanding the vital role of all the life forms which operate in healthy soils. It is the diversity of life forms in the soil which gives plants their natural immunity to diseases and insect 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, decomposing into HUMUS.

Benefits of Growing Your Own Produce

- Health is the key issue here; our own human health and the health of the ecology which we are a part of. Plant tissue eaten either directly from the plant, or within a few hours of picking, is considered to have amazing healing qualities, **(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%. On the other hand, some chronic illnesses like asthma and allergies increased by 100% in only 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.
- When we are born, we are in the most Alkaline state of our lives (baby blood pH approx. 7.3). Reversing the slow but steady build-up of acid waste in the body slows the ageing process
- The foods we eat are either Acid Forming or Alkali Forming. It is not always just directly related to the pH of the actual food itself. For example, a lemon (the fruit) is extremely acid with a pH of approx. 1.9 but this fruit increases the alkalinity in the body and has an alkalisng effect. If we want to influence the body's pH with food, it is not so important to know the pH of the food itself, but the pH reaction in our body, to the food.

- A most significant factor to mention here, is that most 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. Most degenerative diseases including cancer are more likely to occur in 'acid' bodies.

Some Key Small Scale Gardening Principles

- ADAM (Aliveness, Diversity, Air, Moisture)
- Light
- Heat
- Protection
- Vertical & horizontal space
- Moisture & air relationships
- Veggies in containers
- Soil
- Feeding your plants (foliar fertilising)
- Unwanted visitors
- Sprouts & microgreens

Light

- The amount of direct light will be one of the biggest factors to consider.
- How much direct light is available in your growing space, in the different seasons of the year? Containers can be moved during the year to get 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 sunlight per day.

Heat

- What is the heat requirement of the plants 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?

Protection

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

Vertical & Horizontal Space

- Don't forget that you often have as much vertical space as horizontal space.
- A small trellis either on a wall or in an open space can greatly increase your space to grow plants, e.g. beans, peas, cucumbers, passionfruit, etc.

Moisture & Air Relationships

- The art of ecological gardening is about achieving and maintaining the balance between air and water in the root zone of your plants. Plant roots breathe in oxygen and give out carbon dioxide.
- This air/moisture relationship is most critical for plants growing in pots.

- A thin layer of mulch (e.g. lucerne or pea straw) on the surface will keep moisture in the pot and allow the soil to breathe better.
- Consider having a small water feature as part of your small scale garden. The water will increase humidity and help to 'balance' your small eco system.
- Soak dry pots in a bucket of water (for several hours) to fully re-wet all the root zone!
- Have drainage trays under your pots. This stops mess and the drainage water in the tray helps keep the pots moist for a longer period of time. It is also a good idea to put some pebbles in the bottom of the pot itself and in the drainage tray, so the base of pot is not sitting in water all the time.
- Potted plants need to be watered every day or two in hot weather.
- Consider creating a 'wicking' system for your potted plants or purchase self-watering pots.
- The "Vegepod" is a good commercial self-watering garden system.

Veggies & Fruit in Containers

Many vegetables are suitable for growing in containers for small gardens, patios, courtyards, or even the balcony.

The phone APP - "GARDENATE" is very useful to determine best times of the year to plant different species.

- Scarlet runners or Purple King beans (spring & summer) or peas (autumn & winter) when trained on a support, will bear lovely flowers and delicious food.
- Capsicums and eggplants come in a big range of shapes and colours and will do well in the warmest positions.
- Tomatoes thrive in containers. Some of the dwarf varieties such as Tiny Tim and Yellow Pear only need a short stake for support.
- Lettuce such as Regency, Mignonette and Buttercrunch, look beautiful in troughs or large pots, and if you grow a few herbs such as basil, parsley, or sorrel, you can have an instant gourmet green salad.
- Carrots, beetroot, spinach, parsnips, and potatoes can be grown in plastic garbage bins with holes punched in the bottom for drainage.
- Lemongrass and Lemon Balm do well in pots and are lovely for making delicious lemon tea from the fresh leaves.
- Lemon Verbena & Pineapple Sage grow well in largish pots.
- Some fruit trees will also do well in containers, e.g. miniature citrus (lime, lemon, mandarin). Citrus flowers are also edible.
- Strawberries and miniature cherry guavas can also thrive in containers, in a small scale eco garden.
- Many of the edible flowers grow well in pots. e.g. violas, pansies etc.
- Many weeds (wild herbs) are also edible (but that is another story!).

The Soil

- Most veggies need a reasonable depth of soil so any containers should be at least 20 to 30cm deep. Lettuce, radish, and shallots can be grown in slightly less.
- Drainage should be perfect. Put some pebbles (1 inch/2cm deep) in the base of the pot before putting in the potting mix. Use a good commercial potting mix (the coconut fibre ones are very good) and fill the container almost to the brim (to allow for 'settling'). Good, mature home compost can also be used for short term crops like lettuce, and other leaf crops.
- If a stake or support is necessary, put it into the soil/container before planting.
- Water regularly. Never allow container to dry out. Use a mulch on the surface.

Feeding Your Plants

- Plants in containers need regular feeding.
- Add regular thin layers of mulch to the soil surface in the pot, e.g. lucerne chaff, pea straw, sugar cane mulch, etc.
- Add a handful of compost or cow manure, or a small amount of pelletised chook manure to the surface every few weeks, underneath the mulch.

- Liquid nutrient such as seaweed (e.g. Seasol) or fish emulsions are excellent. Use as per label, plus worm juice.
- FOLIAR FERTILISING - Spraying diluted fish & seaweed emulsions onto the leaves/foilage is a very valuable practice, for Small Scale growing. Also add a little worm juice (liquid from a worm farm) to the spray if you can. Helps reduce fungal diseases.

Unwanted Visitors

- In a small garden space, your own observation and vigilance is the 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 (use a biodegradable dishwashing liquid) and sour milk on plants to reduce the effect of sucking insects (e.g. aphids, thrips, mites).
 - 1) Pour 1 tablespoon liquid dish soap into 2 litres water. Stir the dish soap into the water and transfer the contents into a plastic spray bottle.
 - 2) Spray the affected plant's leaves on both sides with the soapy mixture. Pay attention to coat the underside of the leaves with the mixture, as this is where you'll find the highest concentration of aphids.
 - 3) Spray the soapy mixture directly onto any aphids you notice falling from the leaves. The aphids are small, and it's necessary to shoot them with the soapy water to kill the unwanted pests.
 - 4) Rinse away the soapy residue after one to two hours. Allowing the soap to remain on the leaves for longer than a few hours can cause damage and burning. Use a garden hose or spray bottle filled with plain water to remove the residue.
 - 5) Reapply the mixture every few days, or as necessary, to keep the aphid infestation under control.

Tip: add 1 teaspoon vegetable oil to the mixture to increase the mixture's density and make it stickier, helping it attach to and kill the aphids more effectively.
- Keeping the soil moist and well fed is a key to strong plant immunity.
- Prune off dead or sick leaves from the plants and put them into your worm farm or composting system.

Sprouts & Microgreens

- A **Sprout** is a seed which germinates using water only for a few days, and then eaten.
- A **Microgreen** is a seed which germinates, then put into soil/potting mix, and grown for a week or two, until the first few leaves form, and then eaten.

Sprouts & microgreens are:

- powerhouses of nutrition.
- abound with antioxidants allowing cells in our body to regenerate and rejuvenate.
- a concentrated, natural source of vitamins, minerals, enzymes, and amino acids.
- organic food you can grow without a garden.
- offer a wide choice of taste sensations.
- simple and quick to grow in your kitchen.

(see extra handouts on How to Grow Sprouts & Microgreens)

Practical Activity (if time permits)

- Fill an 8-inch pot with ANL Premium Potting Mix (mix with manure and worm castings).
- Each person plants one pot with edible seedlings (to take home).

Review of Workshop

Key points & actions:

- Diversity – increase the variety of what we eat.
- Acid /Alkaline Food – Read Article from Eco House & Garden Website.
- The darker the foliage – the less light the plant needs.
- Plant roots breathe – ensure good drainage & use a mulch on soil surface.
- Consider wicking/self-watering systems.
- Superior quality potting mix – coconut fibre.
- Foliar fertilising – very important.
- Constant observation & vigilance.
- Biodegradable dishwashing liquid – for pest control.
- Sprouts & microgreens.

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

For more information
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