



©Annette McFarlane

## A Beginners Guide to Starting a Productive Garden

*So you want to be self-sufficient, save money and save the planet by growing all your own food. Start off with these lofty sentiments you are doomed to failure right from the start!*



*Beginner's enthusiasm is a wonderful thing, but novice gardeners need to be realistic. Start small and expand your garden area and the range of plants you grow as your experience increases. Like most of us you will come to learn that a passion for gardening is part of a broader lifestyle choice.*

## Ten Great Reasons to Get into Gardening

**Personal satisfaction** – I love it when my garden looks great.

**Feel-good appeal** – People admire my garden and they tell me so. That makes me feel good.

**Bragging rights** – I enjoy telling others, 'I grew it myself'.

**Convenience** – There is always something available to dress up a dish or make a quick soup, salad or stir-fry.

**Pure pleasure** – I enjoy practical activities like planting and pruning.

**Better health** – I get just the level of activity I need to exercise my body and relax my mind.

**Creative cooking** – I'm no Jamie Oliver, but it is amazing what a few fresh herbs can do to liven up a meal.

**Generosity of spirit** – I enjoy sharing a glut of home grown produce with others.

**Learning from nature** –

I learn about plants, animals, soil, climate and so much more just by observing and working with nature.

**Sharing a passion** – Gardening is a very popular pastime and it is easy to strike up a conversation and share stories of success and failure with others.

### Ask for Help

Experienced gardeners know what it is like to be a novice – they have been there. Knowledgeable gardeners are always willing to help those just starting out.

### Learn By Doing

Do you know someone in your area that is a great organic gardener? Why not offer to spend a morning in the garden helping to make compost, preparing beds or planting seedlings. Learn first hand their secrets to success through a 'hands on' approach.



©Annette McFarlane

### **Garden as a Team**

Do you know someone else just starting out or someone who gardens on their own? Why not start a labour exchange? Spend a few hours each month in one another's garden. Making big piles of compost, weeding and mulching is always easier and more fun when you work with someone else. Experiment with different techniques and compare results. Gardening as a team is an enjoyable and rewarding way to learn.

### **Going To Pot**

*Growing herbs and vegetables in pots is a quick and easy option for many novice gardeners. If previous attempts have been a failure read on. Beginners often make simple mistakes that are easily overcome. Listed below are six of the most common reasons for lack of success when growing plants in pots.*



#### **1. Planting in Small Pots**

Small pots dry out very quickly. When plants dry out they stop growing. Cute glazed pots or tiny terracotta troughs may look good, but productive plants rarely grow well in them for very long.

Each plant has two halves. The top half is the foliage above the ground, the bottom half is the root system below the ground. If you want to grow big plants the top and the bottom should be in balance. Big pots = bigger root systems = bigger plants.

Small pots also get hot. Plant roots like to remain cool. Sunshine beating down on the outside of a small pot penetrates inside the roots. This can literally 'cook' your plant's root system and cause roots to die.

#### **2. Using Cheap Potting Mix**

Shop-bought potting mix is not soil or compost. It is not as heavy, does not hold water and does not have the same nutrients as soil or compost. These 'soil-less' mixes are made up of waste products like bark, ash and coir peat. These materials make a light and relatively clean product that plant roots will grow in.



©Annette McFarlane

You get what you pay for. The cheaper the brand, the more quickly the mix will dry out and the fewer nutrients it will contain. If you are growing plants in pots you should buy at least a mid priced brand. As you become more experienced you can purchase a cheaper brand and add your own home made compost and some blood and bone or other organic fertiliser to it. Eventually you will learn to produce your own fantastic compost and can make up your own mix.

### **3. Lack of Water**

Don't wait until your plants wilt before you water them. Roots do not have teeth. They do not chew up soil and or swallow organic fertiliser or compost. Roots suck up nutrients. If the soil is dry they cannot draw nutrients in through the roots – no matter how rich the soil or how much fertiliser you apply.

Most pots will require watering every day during summer and several times each week at other times of the year. Use a trowel or a stick to make a hole in the mix. Place your index finger in the hole. If it feels cold and damp there is no need to water. If it is warm or dry, give your plants a good soak. The weight of the pot is also a good guide. If the pot feels light, it needs a drink.

#### **Watering Potted Plants Effectively**

To water potted plants effectively, pick up the pot and plunge it into a bucket or laundry sink filled with water. Hold the pot under water keeping it submerged right up to the rim of the pot. Leave the pot sitting in the water until all the air bubbles stop rising from the pot. This indicates that the pot is fully soaked.

Use the remaining water to repeat the process with other potted plants. If you add liquid fish fertiliser, seaweed and/or liquid from a worm farm when watering using this method you can fertilise and water your plants at the same time! Tip any remaining water on to the garden.

Don't even think about sitting potted plants in saucers to prevent them drying out. Sitting plants in water is the human equivalent of walking around all day in water-filled gumboots. There are plenty of diseases that love wet conditions. Humans get tinea and gangrene, while plants get root rot.

### **4. Lack of Nutrients**

The roots of potted plants are restricted by their containers so they cannot go searching through the soil in the same way as garden grown plants. This means you need to supply them with nutrients much more regularly than garden grown plants. Look for a powdered or pelleted organic fertiliser made specifically for potted plants. Add this to your pots when planting new herbs or vegetables and every three months after that. Supplement this by combining a liquid fish fertiliser or liquid from your worm farm with some liquid seaweed. Use this to fertilise your plants every two weeks.



©Annette McFarlane

## 5. Lack of sunlight

Most plants love at least six hours exposure to direct sunlight each day, every day of the year. Plants use sunlight to convert soil nutrients into leaves, flowers and fruit. It may look cute to have your herb pots lined up outside on the kitchen window-ledge or inside on the bench, but they are unlikely to receive enough direct sunlight in this position. Plants that are pale green, tall and thin or just not growing are probably not getting sufficient light. You might need to move your pots around at different times of year to ensure that they receive adequate sunlight during different seasons.

### **Well Rounded Plants**

Plants tend to grow towards the direct sunlight. To avoid lopsided plants, rotate your pots  $\frac{1}{4}$  turn every time you water.

## 6. Over Harvesting

Once you start growing your own herbs and vegetables it is natural to want to use them as soon as possible. If you keep picking the leaves from your parsley or lettuce without giving it time to recover and grow new leaves, eventually there will be nothing left. Plants need some foliage because it is the leaves that do the work of harnessing sunlight to convert soil nutrients into growth.

The solution is to wait until your plants are well established before you start harvesting. Establish two or three plants of herbs or vegetables you use frequently so that no one individual plant is ever over harvested.



### **GREAT HERBS TO GET YOU STARTED**

*Some herbs are easier to grow than others. Listed below are some good choices for beginners. Once you master growing these culinary herbs, you can move on to something more temperamental.*



©Annette McFarlane

### **Italian Parsley**

Italian parsley is also known as flat leaf parsley. Novice gardeners will find that it is easier to grow than curled leaf types. It will flower and self sow around the garden, which means you get volunteer plants germinating all by themselves. You will know when your plant is about to flower because it will develop a very tall central stem. The plant will die after it produces flowers and seeds.

*Flat leaf parsley is easy to wash and chop. You will not get that gritty taste sometimes associated with curly leaf types, as there are fewer leaf folds to trap rogue soil particles.*



### **Oregano**

There are several different types of oregano including a form with golden yellow foliage. All types of oregano are edible. This herb grows as a groundcover. Harvesting the tip growth will encourage your plant to branch out. Oregano is a perennial plant that will live for many years.



### **Rosemary**

There are hundreds of different types of rosemary. Most grow as shrubs reaching around 1 metre in height. They like hot, sunny positions and well drained soil. Harvesting long, individual stems, rather than just snipping off the ends, prevent plants dying out underneath and helps to keep them bushy. Rosemary is a perennial plant that lives for many years.

### **Chives**

Chives may be onion or garlic flavoured. The green leaves are best harvested by using scissors to sections of the plant right down to the base. The base of these stems will quickly reshoot. When harvesting, start from one side of the plant and work your way across. Chives are a perennial plant so establishing a few clumps will give you a continuous harvest.

### **Mint**

Mint spreads via underground stems or rhizomes. It is best confined to a large pot if you want to avoid it taking over your garden. Traditionally potted mint was placed under a dripping, outdoor tap. No one has dripping taps any more, but this long-held tradition illustrates just how much moisture mint requires to grow well. Mint is a perennial plant. You can harvest individual leaves or entire stems.



©Annette McFarlane

### **Short Back and Sides**

If herbs like mint, oregano or chives begin to look very untidy, cut all the stems and foliage back to just above soil level. Apply liquid fertiliser to encourage your plants to start growing all over again.

### **Not Just for Mozzies**

Tiny grasshoppers and caterpillars love leafy herbs and vegetables. Prevent them decimating your crop without spraying by draping a small piece of soft mosquito netting (the type that people sleep under) over your crop.

## **GETTING READY TO GROW VEGIES**

*There are several different ways to start growing a vegetable garden. If you are blessed with an existing garden you can work with what you have and simply carry out some soil improvement. Buying in a garden blend is a popular option for impatient types. Going no-dig can be quick and easy on your back. All these methods have their advantages and drawbacks, but with a little advance knowledge it is easy to avoid mistakes.*

### **Working With What You Have**

You may think you have terrible soil, but what you do have can be your best asset. Start improving one square metre at a time. Water the area the day before you intend to start. Remove any weeds, spread some compost, manure, worm castings, lawn clippings and/or organic fertiliser over the top and fork it in.

Cover with mulch to keep the area moist. In a week or two, remove the mulch, fork in more compost, manure or green waste and put the mulch back. Keep repeating this process until the soil smells rich and is chocolate coloured. Aim to have a depth of around 30cm of friable, compost-enriched soil before you begin to plant.

If the soil is already friable or you are really energetic, you can use the same technique to prepare the garden by digging. Remove the weeds and spread your organic matter over the soil surface. Methodically dig all of the soil over so as to incorporate the organic matter and break up large clods of soil. Aim to dig the soil down to the full depth of the spade or shovel. Providing the organic matter you use is not too rich (your nose will usually tell you), you can begin planting immediately. Alternatively, cover with mulch, keep moist and delay planting for a couple of weeks.



©Annette McFarlane

### **Tips and Tricks**

No-one ever said that you have to grow vegetables in a dedicated vegetable garden. Try improving little pockets of soil or trench composting small areas within existing gardens. Mixing flowers, vegetables and herbs together can look great and is a great way to confuse potential insect pests.

Develop your garden a little at a time, expanding it as compost, animal manure and other materials become available.

Aggressive trees and shrubs surrounding your garden can quickly send roots out in search of water and nutrients intended for vegetables and herbs. Consider installing a barrier of corrugated iron or a commercial recycled plastic root guard. Bury this down into the soil around the garden to help exclude invasive roots.

### **Use Your Imagination When Planting**

Planting herbs and vegetables takes a bit of imagination. In order to know how far apart to space everything, you need to imagine how big each plant is going to grow. Planting too close together means plants compete with one another for water, nutrients and sunlight. Planting too far apart exposes plants to buffeting winds and wastes valuable growing space.

Most cabbage and kale grow larger than lettuce so need to be spaced at least 30cm apart. For small varieties of loose leaf lettuce allowing 20-25cm is usually sufficient. Radish need just 2-3cm each so you can sow a lot of seeds in a tiny area.

Vegetables do not necessarily need to be planted in straight rows, but sometimes it is more convenient to do so. If you are growing beans on a trellis it may be easier to erect one structure and grow them all together. Corn is best grown in a big block. Individual plants help to support one another which prevents them blowing over and pollination is improved so you get a better harvest.

### **Buying in Garden Blends**

Let's dispel one myth. Premium garden blends or 'soil mixes' purchased from landscape suppliers and nurseries are not real soil or compost. They are really 'soil-less' potting mixes with some extra feedlot manure, chicken manure, sand and/or green waste (usually composted tree prunings) mixed in.





©Annette McFarlane

They generally smell rich, feel friable and cost a lot of money. They sometimes grow one or two good crops of vegetables, but after that they are generally exhausted of nutrients.

Garden blends can be useful for forking into existing soil to build up beds and help drainage. You can enrich them by adding more organic matter like home made compost, real decomposed animal manure (as opposed to heat treated processed types), organic fertiliser and worm castings. As a guide use a ratio of at least 30% real soil, compost, manure and/or castings to 70% garden blend. If you cannot access this amount of good organic material to begin with, just keep cultivating what you have into the garden blend as supplies become available. Alternatively, you could try growing a green manure.

#### **Tips and Tricks**

Apply liquid fertiliser (worm liquid, fish fertiliser, liquid compost) and seaweed every week to provide plants with nutrients that are missing from garden blends.

Check the pH of the mix. It should be around 6.5. Where it is outside of this range, add lime or sulphur according to the directions contained in the pH kit.

#### **What is pH and Why is it Important?**

The pH is a reading of how acid or alkaline something is. It is measured on a scale of 1-14. You can test the pH of something by using a simple kit that contains a reactive dye. The dye changes colour according to the pH level. You match the colour of what you are testing against a colour chart.

Most plants prefer to grow in soil with a pH range of between 6 and 7 as all the nutrients a plant needs are most readily available within this range. If you test your soil and it is outside of this range your plants may not grow very well. Using liquid fertiliser can help but it is better to follow the instructions in the test kit and change the pH to a more suitable level.

#### **What is a Green Manure?**

A green manure is a crop of plants that you grow specifically to incorporate back into the soil. You sow the seed into roughly cultivated soil, rake the soil over and water the seeds in. Green manure plants are dug or forked into the soil when they are about knee high and before they flower and develop seeds.

The roots of a green manure crop help to break up compacted or heavy soil. Once the crop is dig or forking into the soil the green plant material decomposes, providing food for worms and other soil organisms and turning into valuable composted matter. Plants used as green manure crops vary from season to season and from one region to another. Find out what plants can be used as a green manure crop in your region by asking at your local nursery or produce store.



©Annette McFarlane

## **Going No Dig**

This form of garden construction is a way of creating new soil and recycling green waste you may already have available.

### **What You Need**

Prepare ingredients for your no-dig garden by collecting:

- wet newspaper or cardboard
- nitrogen rich materials like lucerne, pea straw, grass clippings, soft green pruning and annual weeds, animal manure and organic fertiliser such as blood and bone or chicken pellets
- high carbon mulch materials like cane mulch or bedding straw
- liquid seaweed, plus compost and/or worm castings
- liquid fertiliser like compost tea, worm juice or fish fertiliser

### **Construction Method**

#### **The weed barrier at the bottom**

Layer wet newspaper (at least 6 sheets thick) or cardboard over weeds or lawn. Over-lap the layers to exclude all light and kill weeds and grasses below.



#### **The compost in the middle**

Spread thin layers of your nitrogen rich materials over the newspaper, thoroughly wetting between each layer as you go. The greater the variety of materials, the better your new garden will be. Do not walk on this material or squash it down as it is important to trap air between the layers. Continue to build up the layers like a nutrient-rich lasagne until you have reached a height of at least 50cm. This will become your new soil, so the thicker this layer is the better.

#### **The mulch layer on the top**

Add the final 10cm layer of high carbon mulch materials to help retain heat and moisture over the next few weeks. Once the layers have broken down to half the original height (at least two weeks) you can start to plant.

### **Planting A No-Dig Garden**

To plant a no-dig garden make fist-sized pockets through the mulch layer and down into the decomposing middle layer. It will not be compost just yet, but do not be concerned. Fill the pocket with homemade compost and worm castings. You can also make up a 50/50 mix of these materials and potting mix. Plant your seeds or seedlings in these pockets and replace the mulch. Water in with liquid seaweed or worm juice. Fertilise your crop with liquid fertiliser each week.



©Annette McFarlane

After harvesting your first crop simply repeat the last two steps of your original no-dig construction method. The newspaper layer is not usually required as there should be no weeds or lawn to shade out.

### **Tips and Tricks**

Check the new garden after a few days to ensure the middle layer is very warm and wet. If it is dry add more water. If it is cold you need more nitrogen, so remove the mulch and add extra organic fertiliser or grass clippings.

Mulch materials like wheat or oat straw, sawdust and cane mulch are not recommended for the middle layer compost layer, as they do not contain sufficient nitrogen.

### **GREAT VEGIES TO GET YOU STARTED**

*Just like herbs, some vegetables are easier to grow than others. Listed below are some good choices for beginners. These vegetables can be grown across a wide range of climates. Planting times vary from one region to another, so check local planting guides or ask staff at your nearest nursery when they are suitable to plant in your area.*

#### **Rocket**

Rocket is a salad vegetable harvested for its leaves. It is generally eaten like lettuce or can be used as spinach. Rocket is an annual that dies back completely and must be replanted several times each year. It is shorter lived in warm climates and longer lived where it is cool. To grow rocket well you need plenty of nitrogen and water. If your rocket is very hot and bitter your plants are getting old or need more regular watering and extra nutrients.



#### **Loose Leaf Lettuce**

These lettuce varieties grow like a bunch of leaves rather than having a rounded head of overlapping foliage like a traditional Iceberg lettuce. Sometimes also called open-hearted lettuce, these varieties grow over a wide range of climates and you can begin harvesting in as little as three to four weeks after planting. Just pick a few outside leaves from each plant and leave the remainder of the plant to regrow. Lettuce needs lots of water and nutrients to grow well and avoid bitterness.

#### **Cherry Tomatoes**

Cherry tomatoes are much easier to grow than large fruited varieties. If you are short on space, train them up a trellis. If not, just let them sprawl. No need to worry about complicated pruning, as they will fruit regardless. Caterpillars can sometimes attack the odd fruit, but do not be too concerned. With three or four plants you will have more tomatoes than you know what to do with!



©Annette McFarlane

## **Radish**

If you are keen to see quick results this crop is for you. Radishes are always grown from seed and typically germinate in 3-7 days. Your crop can be ready to harvest in as little as three weeks. Radishes should not be very hot. If they have grown slowly and been stressed from lack of water and nutrients they will be very hot and not pleasant to eat. Try again and apply liquid organic fertiliser such as worm juice to your next crop several times each week.

## **Kale**

Just like loose leaf lettuce, kale is a type of cabbage that does not form a central heart. It is tolerant of a wider range of temperatures than traditional cabbage. Because you harvest individual leaves as you need them, this vegetable can provide you with a continuous harvest over several months. Keep a watch out for caterpillars, removing them by hand as required. If the odd leaf is chewed, just remove it and add it to the compost.

## **What is the Best Way to Make Compost?**

By making compost you are really just trying to accelerate the natural break down of organic matter. There are endless methods of making compost. The best method is the one that suits your lifestyle and the range of materials you have available to you.

Some gardeners make compost in several different ways in the one garden. A basic outline of some common composting methods appears below. Try one or more until you discover the method that best suits your needs.

## **Worms Farms**

Worm farms can be big or small. You can purchase commercial kits or make your own. Worms are ideal for composting kitchen waste, but also love soft foliage from the garden. The materials that pass through the body of a worm are termed worm castings. Castings are a fine, dark earthy compost that can be mixed with potting mix or soil and used when planting.

Many gardeners find that the most valuable product of their worm farm is worm juice. This juice is made by pouring water through the worm farm. The water dissolves the worm castings on the way through. The collected worm juice is a nutrient enriched liquid fertiliser that can be used on any plants.

### **Things to Remember**

Worms are not good swimmers, so make sure your worm farm drains well or your worms will drown. Extreme dryness, heat or cold are also detrimental to worms. If using kitchen scraps, only add as much food as your worms can consume in a few days. Rotting food waste often causes smelly worm farms.

Worms do not have teeth so they cannot chew their way through seeds. If you feed your worms kitchen waste, don't be surprised to find volunteer pumpkins, cucumbers and tomatoes coming up wherever you add worm castings to the garden or pots.



©Annette McFarlane

### **Trench Composting**

This is probably the easiest method of composting for someone just starting out. It is a great method of getting rid of kitchen waste and small amounts of garden refuse. All you have to do is bury it around the garden.

Select an area of the garden where the soil needs improving. Dig a trench at least 30cm deep and about 30cm wide. Start filling one end by placing your daily kitchen or garden waste in the trench and covering it with soil. Work your way along the trench until you are left with a lovely mounded line of soil indicating where the waste has been buried.

Some gardeners use this method to prepare beds for vegetable growing. Simply plant into the soil on the top of the trench and allow your vegetables to send their roots down into the decomposing waste below.

You can even use this method in existing beds filled with trees and shrubs. Dig individual holes rather than a long trench. Work your way around the garden taking advantage of any space you can find in between established plants.

#### **Things to Remember**

Trench composting is a great way to welcome worms into your garden. Just make sure that you bury the waste deep enough to deter dogs, cats or vermin from digging it up.

Sprinkling a little lime over waste in a compost trench can help to attract worms and make the materials decompose more quickly.

Trench composting results in plenty of volunteer plants, so do not be surprised to find tomatoes, avocados, cucumbers and all sorts of other plants germinating around the garden at will.

### **Compost Bins**

Compost bins come in a variety of shapes and colours, but all work on the same principle. The material is slowly broken down by fungi, bacteria, worms, beetles and other organisms. Most people use kitchen scraps in their compost bins, but it is a good idea to use a variety of materials if possible. Adding alternating layers of kitchen waste, leaves, grass clippings and soft prunings provides variety for the organisms breaking down the compost and ensures that the end product contains a diverse range of plant nutrients.

As compost bins typically have no bottom, rats and mice can easily tunnel underneath to get access to food. To prevent this occurring, dig a 10cm depression into the soil that corresponds to the size and shape of the base of the bin. Line the depression with fine mesh wire small enough to exclude a mouse. Place the bin on the top of the wire and mound the excess soil around the sides of the bin.



©Annette McFarlane

Kitchen scraps can be wet and very acidic. Place piles of drier materials like leaves and grass clippings beside your bins and use these to cover kitchen waste each time it is added. If the bin starts to smell it may be too acidic. Keep an ice cream container filled with lime close at hand. A light sprinkling of lime dusted over waste in the bin will make the contents more alkaline and the smell will disappear immediately.



### Things to Remember

Waste in a compost bin often needs to be left to mature for three to six months in order to break down completely. Consider investing in at least two bins exactly the same. Once the first bin is completely full, leave it to break down. Start adding waste to your second bin. By the time you fill your second bin, the first bin of compost should be ready to use. You can ensure everyone uses the correct bin by making sure your bin lids are interchangeable. Use white paint to label your bin lids with slogans like, 'I'm Full' and 'I'm Hungry' and alternate swap the lids around as appropriate.

### Compost Bays

If you have lots of garden waste or want to make compost in a hurry, Multiple compost bays may be the best option. These are open-fronted bays made from timber, bricks or iron. The size of the bays will depend on the waste you have available, but the bays should be placed side by side.



Fill the first bay with garden waste, animal manure and what ever other organic material you have available. Wet the material thoroughly in between each layer. After the first bay is full, leave it to rest until you have a new supply of materials. Repeat the process moving material from one bay into the next every time the first bay is refilled. By the time you fill the first bay for a third time, the material in the final bay should be friable compost that is ready for use. Anything not completely decomposed can be recycled through the system again.



©Annette McFarlane

### **Things to Remember**

Key ingredients in making quick compost are a variety of green, high nitrogen materials, moisture and plenty of oxygen. Where green materials and animal manure are in short supply, add blood and bone or pelleted organic manure.

If you have the balance of ingredients in the correct ratio, don't be surprised to see your freshly turned heap 'letting off steam'. Heat is a bi-product of rapid decomposition of organic waste.

### **Summing Up**

#### **Take Time to Prepare the Soil**

Prepare your soil by improving a small section really well, rather than trying to tackle the entire garden all at one time.

#### **Make Your Own Compost**

Homemade compost not only provides your plants with nutrients, it places billions of beneficial fungi and bacteria in close contact with the root system. Pelletised, deodorised, pastured products that are sold commercially have had all the life processed out of them. Use them as part of your fertilising strategy, but not as a substitute for your own 'living' compost.

#### **Always Add Compost When You Plant**

Adding compost every time you plant puts fresh pockets of beneficial fungi and bacteria all around your garden. It provides food for worms and an extra nutrient boost for your plants.

#### **Select Suitable Plants**

Select plants that are easy to grow and suitable for your climate and level of gardening expertise. Follow the recommendations of local gardeners or ask at your local nursery.

#### **Plant Out Immediately**

Plant fresh seeds and healthy seedlings as soon as you can after obtaining them. This ensures that they are in peak condition and that they get off to the best possible start.

#### **Water Plants In With Liquid Seaweed**

Liquid seaweed is a great plant tonic. It stimulates soil microbes, helps to build disease resistance, reduces the transplanting shock suffered by seedlings and aids seed germination. Watering thoroughly after planting or sowing seed eliminates air pockets and brings soil and compost in closer contact with new roots.