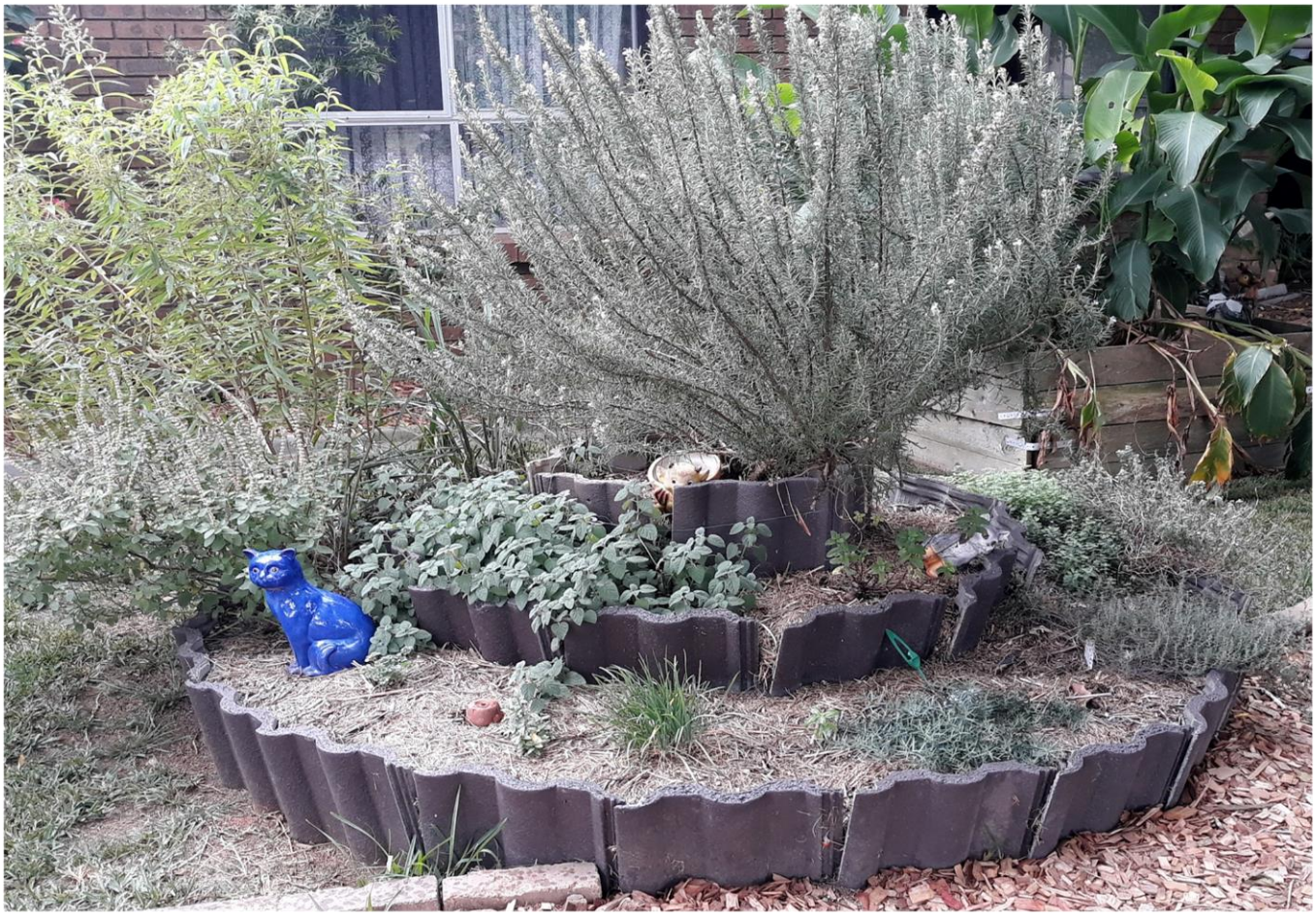
Growing Herbs and Spices in Suburbia



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Sustainable Living in the Suburbs

By Nev Sweeney

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1.0 Introduction

There is always a place in our lives for growing a few herbs and/or spices to keep our food interesting. Even if you live in a unit or townhouse, you can still have a pot of rosemary or basil hanging around for use when you need it. The extent to which you can grow them will depend upon your climate as much as anything else, but it is worth finding out which herbs and spices will do well in your area, and then give it a go!

Why Grow Herbs and spices?

- Flavour! (freshness) – you will not get more and better flavour than from herbs you have picked yourself, from your own garden, minutes before you add them to a dish.
- Herbs are High value crops – Herbs cost quite a bit, but because we only buy small amounts we may not notice. For example a 15 gram punnet of fresh basil at Woolworths costs $3.20, which appears to be not much but that equates to over $210 per kilo. By growing your own herbs and spices you can save money on your grocery basket.
- Reduce food miles – as with much of our food, herbs and spices can be labelled as 'Australian Grown' but Aus is a big place, how far has it travelled to get to you? They may also be labelled as 'mixed origin' so you have no idea where they come from, or 'packed in Australia from imported product' again, no idea how many food miles are on them. If you just walk out to your herb patch and grab what you need it becomes food feet not food miles!
- Reduce plastic packaging – just about all herbs you buy, unless they are from a 'package free' shop like 'The Source' or 'Honest to Goodness', will be covered in plastic packaging to a greater or lesser extent. This is totally absent if you grow your own.
- A little goes a long way – and what this means is that you do not have to consign a huge amount of your growing space over to herb/spice production. Even a few pots can provide most of what you want.
- They are attractive – herbs can add visual appeal to your garden and release pleasing aromas if you brush by them as you walk around in your garden. Herbs can be used in edible landscaping. Herbs such as basil, lavender, lemon verbena, oregano,

parsley, rosemary and many others can be planted amongst flowers, trees and veggies to add beauty to your garden as well as flavour.

- They are often hardy and easy to grow – Many herbs, especially the mediterranean herbs like bay, dill, fennel, oregano and rosemary are very hardy and don't require a lot of looking after, a positive thing then life gets busy!
- Herbs are 'Gateway' plants – if you have been thinking about growing some of your own food, herbs are a great place to start, because they are easy to grow and don't take up much space. Once your herb garden is thriving, careful or you may be sucked into growing your own vegetables, then fruit, who know where it will end!
- Increased variety of herbs – as with much of our food, if we rely on the supermarket for our fresh herbs the variety is limited, but if you grow your own the choice is limited only by your imagination. (OK, and climate too!).
- Herbs and spices can de used in companion planting like the well-known pairing of basil and tomatoes being planted together, if you believe in that stuff.
- Many culinary herbs and spices also have medicinal uses, such as using ginger, sage, peppermint, dill seed and fennel seed for digestive problems.
- Healthier eating (organic growing) – unless you buy organic herbs and spices there is no way to know what chemicals have been used in their production. If you grow your own you know exactly what has been applied to them, and hopefully they will be organic!
- Sharing is caring – if you grow your own herbs and spices it is likely that you will be producing more than your need, so why not give the excess to friends, family or even strangers walking on your street. Or you could join a food swap group and trade excess herbs and spices for other homegrown goodies.

As you can see from all these reasons it really is worth it to start your own herb and/or spice garden, give it a go this weekend!

2.0 Overview

Sustainable living is more than just about growing herbs and spices, but providing our own local, organically grown food and flavours using Permaculture principles is not only intensely satisfying but also makes great economic and environmental sense. We live on 600m2 in Sydney's greater west and for many years I have contributed to the family larder by growing herbs and spices and this is an overview of how we do it.

Herbs

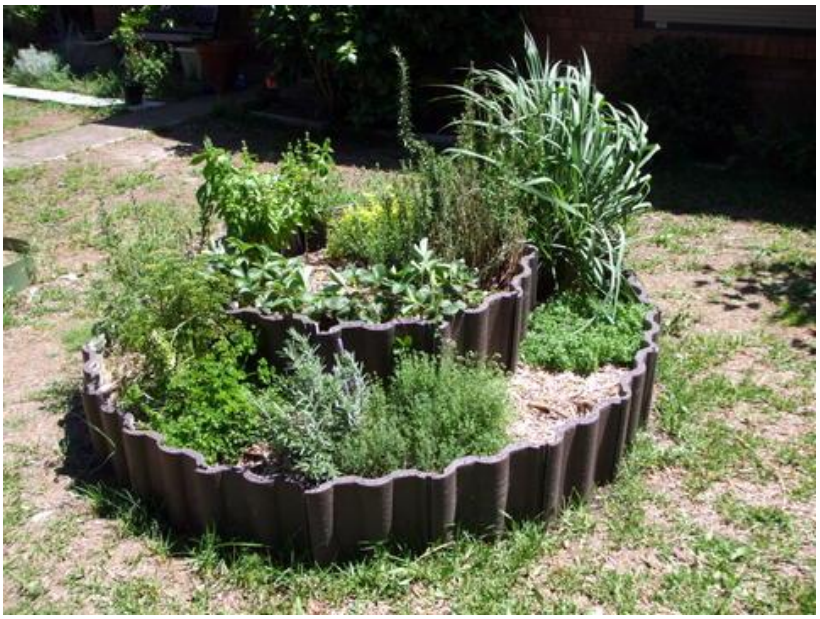
When I started out growing our own food, I also wanted to start growing herbs as well. I didn't have a 'herb garden' as such, I just planted them in various areas around the place and with varying degrees of success. I planted mint under the tap because of its need for water, but it didn't do very well in our dry climate but rosemary on the other hand has prospered in a few places in the front yard and even today grows near the letterbox and at the apex of the herb spiral.

The Herb 'Spiral'

Back in 2009 as part of a permablitz at our place by Permaculture Sydney West, we constructed what was theoretically a herb spiral to expedite my herb growing objectives. A friend of mine who was a roof tiler turned up with some excess roof tiles which we could use to construct it. They worked well but due to their peculiarities the spiral became a two-tier 'wedding cake'.

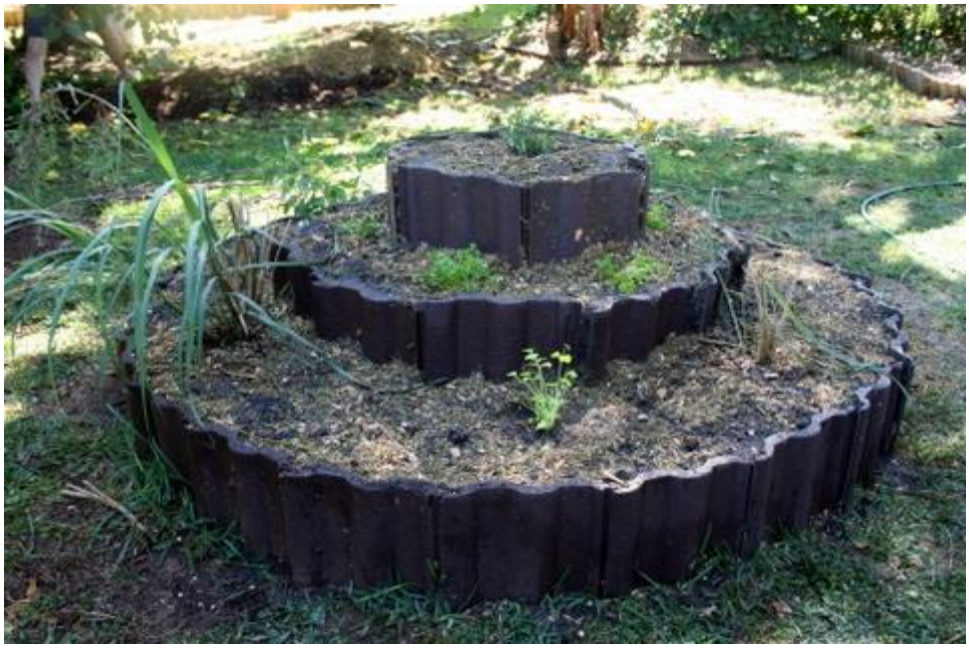
2009

This has been home to many herbs over the years including –
Angelica, Basil, borage, calendula, chives, coriander, dill, feverfew, lavender, lemongrass, lemon verbena, nasturtiums, marjoram, oregano, mint, parsley, pennyroyal, rosemary, sage, sorrel, tarragon, thyme, wormwood and yarrow. Plus probably others I can remember. Obviously not everything at any one time, but over time all of them have had a place in the herb spiral.



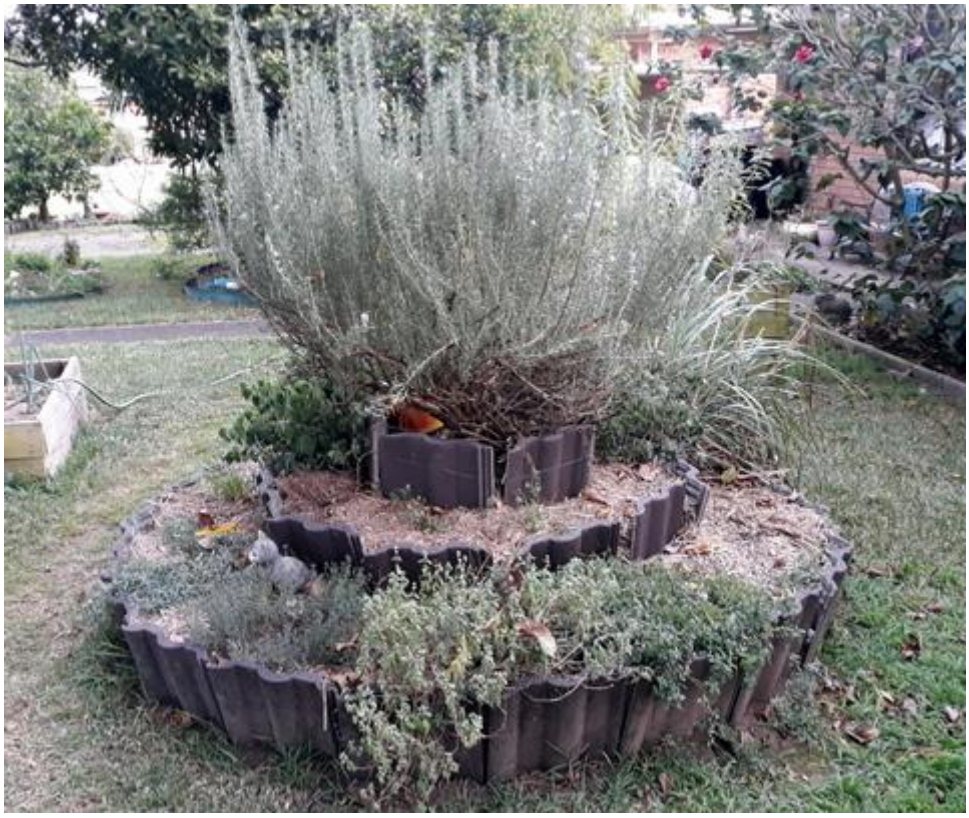
2010

In 2013 we had a second blitz during which the original herb spiral was pretty much pulled down and rebuilt and a third tier was added to the top, which has housed our main rosemary plant ever since.



2013

Just recently, due to prolonged wet weather, the lemon balm tried to take over, but it has been cut back severely and the herb spiral is now home to – Basil (perennial), basil (spicy), chives, lemon balm, lemon verbena, lemongrass, marjoram, oregano, parsley, rosemary, sage, tarragon (French), and thyme. I will probably add to this when we are coming into spring, later in the year.



2023

Tree herbs (spices?)

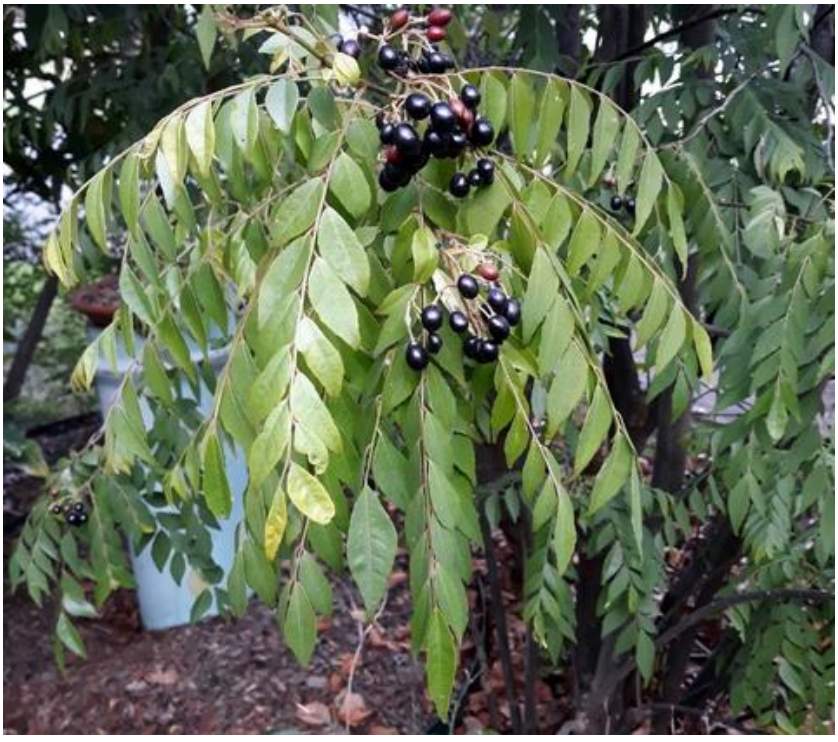
2010 when the Makrut and Curry Leaf Tree were installed

We have three trees that we harvest leaves from to flavour our cooking and one medicinally –

Bay Tree (Laurus nobilis) – This is a slow growing tree, which we have had hanging around for a very long time. It predates all our other herbs, being bought in over 35 years ago. It started out in a pot near our front door after I first bought it, but then about 30 years ago I transplanted it into the north eastern corner of our front garden. It is easily accessible to passers-by but I don't know how many would know what it is. It has become the lynchpin of our longitudinal food forest in the front yard and would probably be able to supply all of St Clair with by leaves!

Makrut Lime or Kaffir Lime (citrus Hystrix) – It was one of the original plantings of our so called 'fruit tree circle' that I put together in 2010 to replace the carob tree (which turned out to be a non-productive male tree). It is in the northernmost part of the circle, adjacent to the path, and continues to grow well, just requiring the odd prune to open it up and keeping it free of bronze orange bugs during the hotter months.

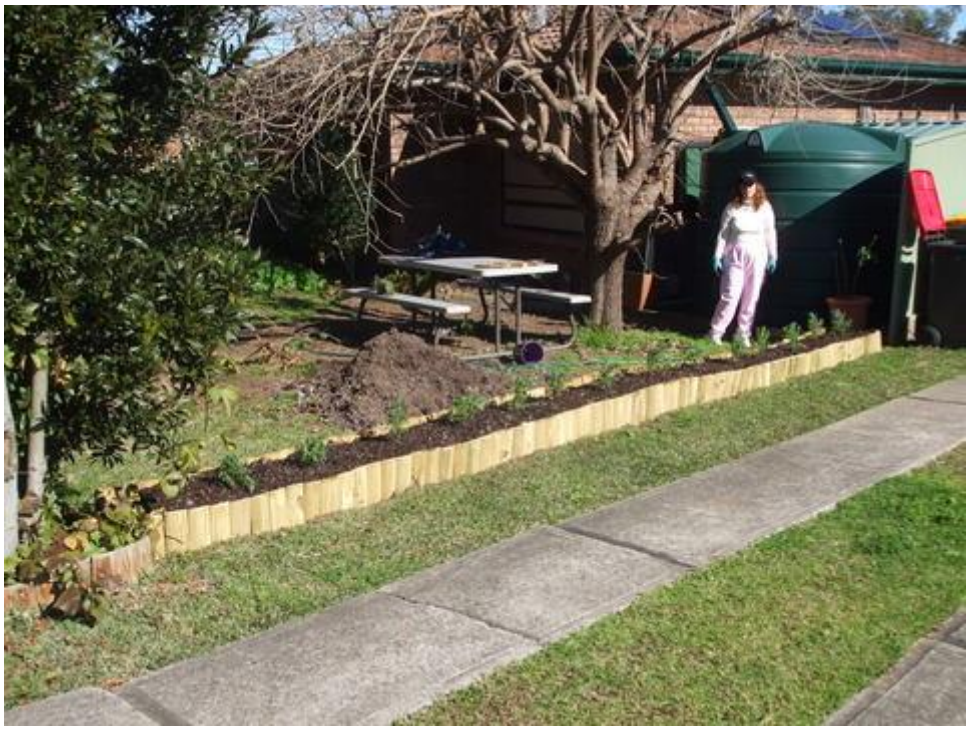
Curry Leaf Tree (*murraya koenigii*) – This also was part of the original 'fruit tree circle' plantings in 2010. It is pretty hardy and does not require much care, just a bit of water during really dry times. It is exceptionally handy when I am cooking a curry to be able to walk out my front door and three metres away is our own curry tree.



Tea tree (melaleuca alternifolia) – these were placed across the front of the front garden as tubestock we got from the Easter Show almost 40 years ago. They just about define the boundary of the front yard these days. They produce a wonderful medicinal oil (tea tree oil) and it has been on my 'to do' list to steam distil some of it from the foliage of my tea trees. They do drop twigs (and occasionally branches in high winds) which we use to start the fire in winter and power rocket stoves.

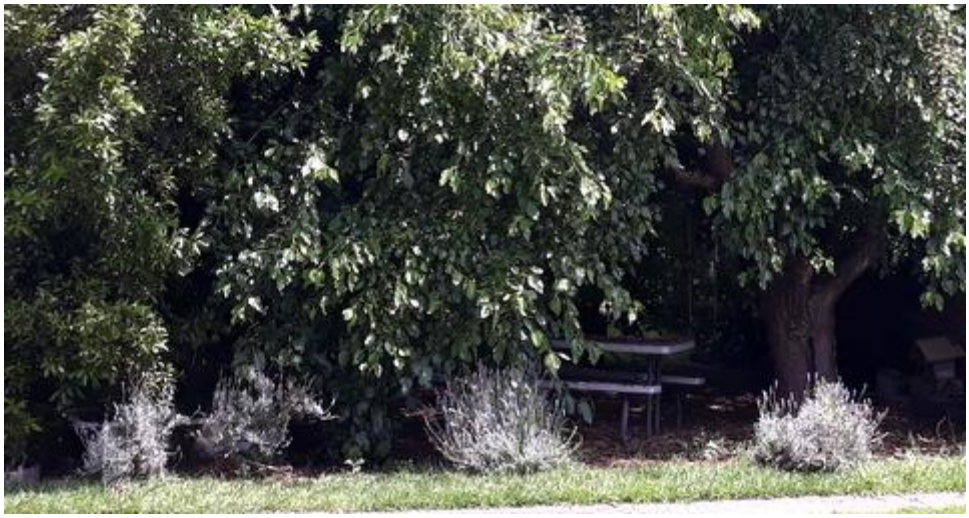
The Lavender Hedge

Back in 2012 I built a long but narrow raised bed, filled it with mushroom compost and installed a series of twelve lavender plants along it. I then set up a simple but effective watering system to keep them hydrated. In the intervening years we have had scorching hot, dry and then supremely wet conditions. Of the original twelve we still have six plants existing, but I need to redo the area and replace the lavender plants that have passed on.



2012 when they were first put in

2015



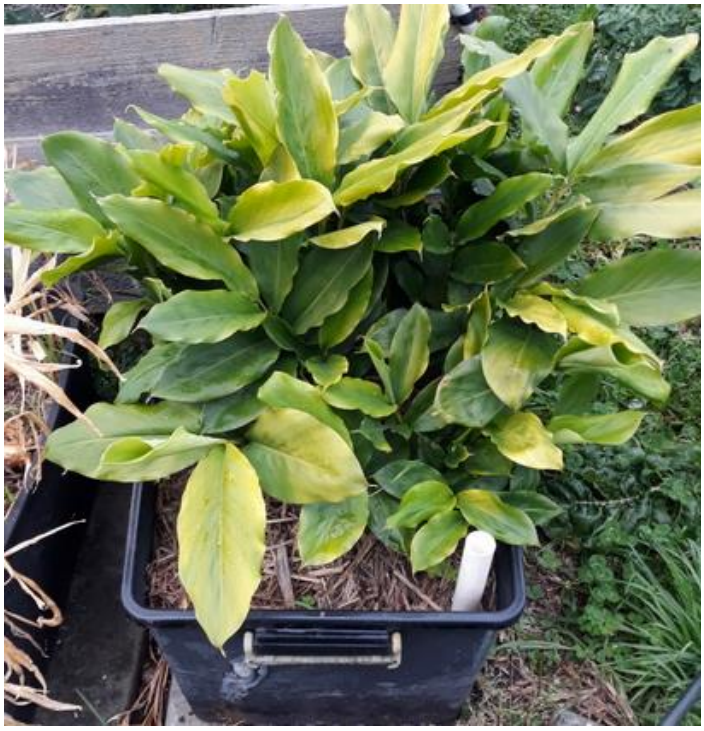
2023 - A bit sparse, needs a revamp!

Spices

In 2010 I came across the concept of the earth box, a self-watering container made from a rectangular plastic tub or bin, where the top was fitted half way down the tub, the growing medium being heaped on top and the water reservoir sitting below. I made four and grew a random series of veggies in them until it occurred to me that they could be used to grow spices of the Zingiberaceae family.

Turmeric, galangal and ginger

These plants are really tropical but because the containers are black and absorb the suns heat, and have their own water reservoir for those really hot days, I thought they would do the job, and in fact they have! First was ginger (zingiber officinale), being the spice I use the most, over 10 years ago and for the most part we have been able t get by with the ginger I grow since. Then over the years came turmeric (curcurma longa) and galangal (alpine galangal) and then finally cardamom (elletaria cardamomum).



Cardamom

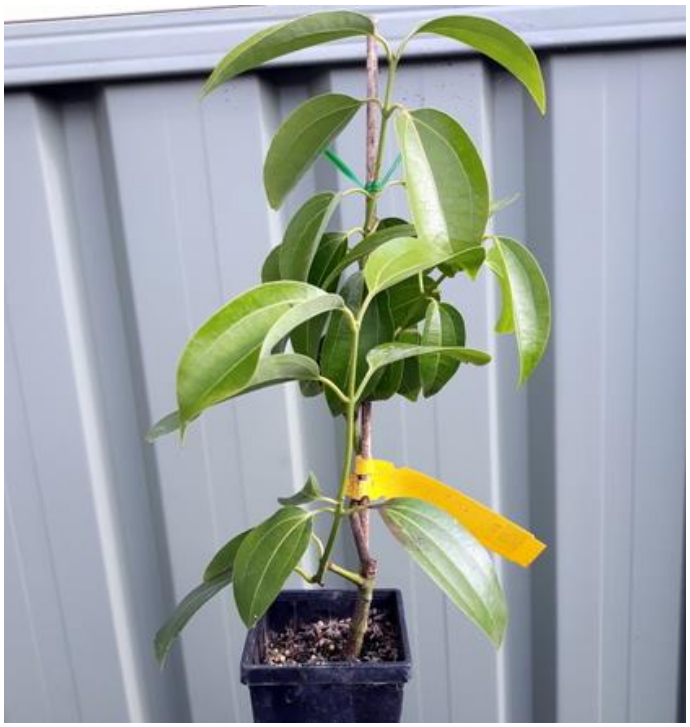
Cardamom was only added to this gang of four within the last year. While of the same family as the others it is the fruit that is used not the rhizome, although the leaves can be used to give a cardamom-like flavour to dishes. I have been growing it for years near the back steps but it has not produced flowers or pods, I hoped that by transplanting some to the black box it would get enough heat/light to flower. The experiment continues!

Turmeric harvest

They all grow well during the hotter months but during winter (we get some frost) they will die back partially or fully back to the rhizome, to then come on again as the warm weather returns in late spring.

Winter takes its toll!

A new tree spice has just come in during the last couple of weeks – cinnamon (Cinnamomum verum). Cinnamon is a true tropical tree so it is really an experiment to see if I can grow it in a pot in my greenhouse to the point where it is big enough to actually harvest some cinnamon. At the moment it is only about 30cm high, so it remains to be seen how it will go.



Our brand new cinnamon tree!

I have also had some experimentation (in the herb spiral) in growing both coriander (Coriandrum sativum) for the seed/spice only not the leaves (yuk!) and cumin (Cuminum cyminum). I have had some slight success with the coriander and harvested about 10 grams of seed this year, but was hardly able to get the cumin to germinate so a lot more work is required.

Conclusion

While we do still buy spices (although we will be buying less if I am successful in the longer term) we don't buy that much in the way of herbs and I hope to continue that trend. As with lots of aspects of living more sustainably, the adventure continues!

3.0 Herbs

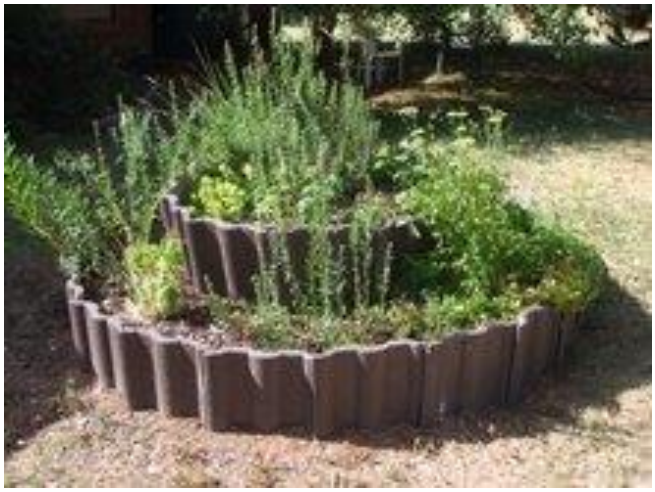
3.1 The Herb Spiral

The Herb Spiral (or is that wedding cake?)

The herb spiral is another one of the great things to come out of permaculture, the idea being that it provides many different microclimates to grow the different types of herbs such as warmer and drier at the top, cooler, shadier and moister around the bottom. Also, being in the shape of a spiral, it provides the equivalent of a long narrow bed in a smaller space. It is also quite decorative as well as productive, as many of the permaculture ideas tend to be.

I did have help and it was put together on the same Saturday morning as the banana circle was constructed. I needed quite a bit of organic matter to fill it with, more than I could easily home produce. My friends brought some horse manure but I bought in two tons of garden compost. The compost worked well but had a tendency to pack down and in retrospect mixing it with half a ton or a ton of coarse sand to improve drainage would have been a good idea.

I also needed a material to build the spiral with, and of course it had to be recycled material. A good mate of mine is a roof tiler and he had some unused but old tiles that were going to be discarded. He was very kindly able to donate them to the project.



1. Location – The first thing to do is to locate the spiral, preferable where it gets plenty of sun so that the sun-loving herbs can be catered for. We don't have huge amounts of space in the back yard, so we put it smack in the middle of the front yard. I thought it would look good and it does, it is a nice and productive addition to the front yard.

2. Marking out – Once we knew where it was going, it had to be marked out and in the same way as we did the banana circle, the perimeter of the area where the herb spiral was to go was laid out by pushing in a pointed stake in the middle of the area then adjusting the rope to the right radius, then drag it around in a circle, making a circular line in the earth.

3. Clean up and Dig! – The top of the marked out area is cleared of grass and a groove dug around the outside of the circle, something for the outer ring to sit in, in this case the tiles.

Due to the peculiar nature of the tiles, it proved easier to make two concentric circles, a smaller one on top of the larger one, rather than the classic spiral. This works just as well and proves the flexibility of the concept.

4. Making the outer ring - The outer ring of tiles was then sunk into the ground about a third of their height and then soil; pushed in on both sides to hold them upright. A piece of irrigation pipe was pushed through under the outer ring so that it could be brought up through the middle of the inner ring to enable a sprinkler to be installed in the centre of the inner ring. With the tiles in place, the entire area of the ring was lined thickly to halfway up the tiles with wet newspaper, to prevent weeds and grass growing up through it. This ring was then filled up with layers of compost and horse manure.

5. Making the inner ring – Once the outer ring was full of organic matter the inner ring of tiles was sunk one third of their height into the outer ring so that there was an empty cylinder formed on top of the material in the bottom or outer ring. This empty cylinder of tiles is now filled with compost and horse manure too.

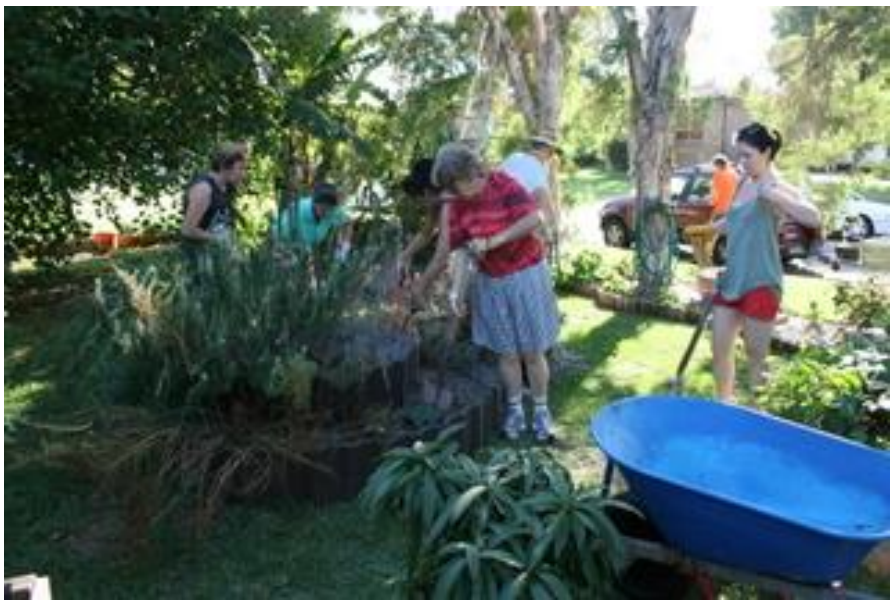
6. Plant out and mulch – the herbs can now be planted into both rings and the area mulched, we planted rosemary; sage; tarragon; nasturtiums; basil; marjoram; chives; lemon grass; parsley; some strawberries and few edible flowers such as pansy. Then water the living daylights out of it!

In retrospect I would have (and still may) twitch up some wire around the top circle to keep the tiles in line, they are starting to move out a bit as the organic matter rots down a bit and subsides. I have not put the sprinkler into service either, we just hand water with town or tank water as we can.

All in all it looks good and helps make our meals more flavourful so I would recommend it as a worthwhile project for anyone looking to live more sustainably in the city.

3.2 Re-Doing the Herb Spiral

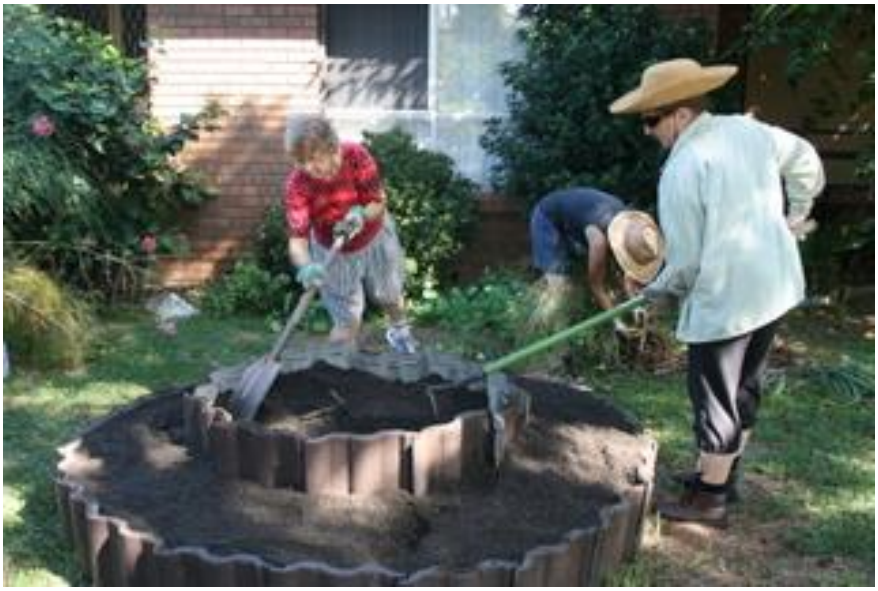
About 5 years ago, as part of a “blitz” the guys from Permaculture Sydney west put a herb spiral in our front yard. It does look like a wedding cake rather than a spiral, buuut what are ya gonna do? The soil the herbs were growing in had compacted somewhat over the years, the tiles were starting to collapse outward and the herbs themselves (what was left of them) were getting very large and leggy despite my pruning, so it was time for a re-do.



After everyone had got here and we had the run through of the day's activities, the "Herb Team" swung into action. The work was fairly simple, I had had a load of organic garden mix (about a tonne) delivered onto a tarp at the front of the house to replace the soil with, but before we could do that we had to pull out the old herbs and dig out the existing stuff down about 200mm. The diggings were then dumped under the mulberry tree in the front yard to be mixed with the garden mix we didn't use on the day and the shreddings from any trees that got pruned to make a sort of compost pile/swale.

We kept the lemon grass clump and divided it into three ready for replanting, but the oversized rosemary and lavender bushes were dug out and left for anyone who wanted to take some. The leftovers were composted.

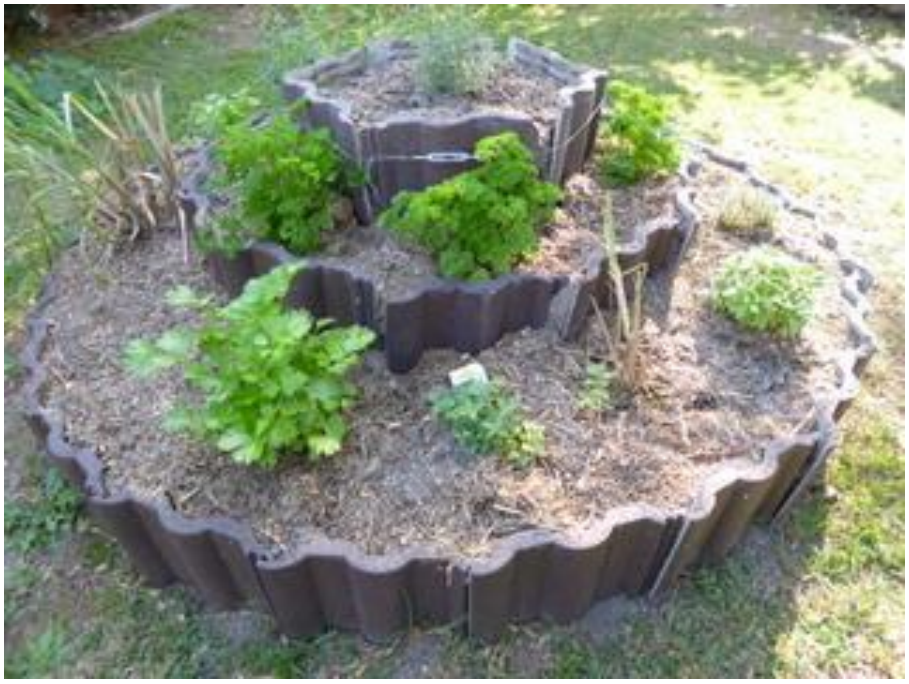
Once the old soil had been removed it was just a case of wheelbarrowing enough organic mix to fill up the bottom tier and then shovel some into the top tier. I still had some tiles left over that were given to me by a mate who is a roofer so it was decided to complete the wedding cake analogy by putting on a third tier. When I did the original one I built in some irrigation pipe so that I could pump water from the tank and connect a sprinkler and water the herb spiral from the centre, but I had never used it so the third tier covered it up.



We finished the work off by inserting the tiles into the second tier to form the third tier then filling everything up with organic garden mix. Once that was completed all of the tiers were mulched with tree shreddings and planted out with new or recycled herbs. The top tier was fitted out proudly with a new rosemary bush!

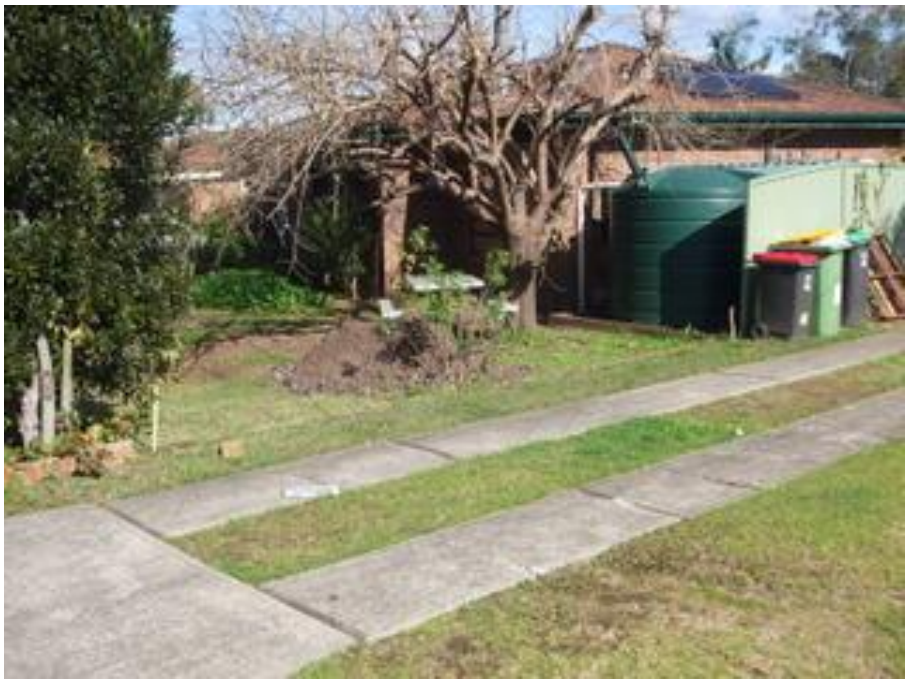
Unfortunately, the top tier of tiles started to sag outward after the first good rain, so I had to reinforce it with some very thin galvanised wire and a turnbuckle. Every so often I give the turnbuckle a twist to keep the wire taut, in the same manner that braces fix teeth that are out of line it is slowly pulling the tiles into line without busting any. Now

everything is growing well and our rejigged herb spiral is starting to produce herbs again so if I get another 5 years out of I will be happy!



3.3 The Lavender Hedge

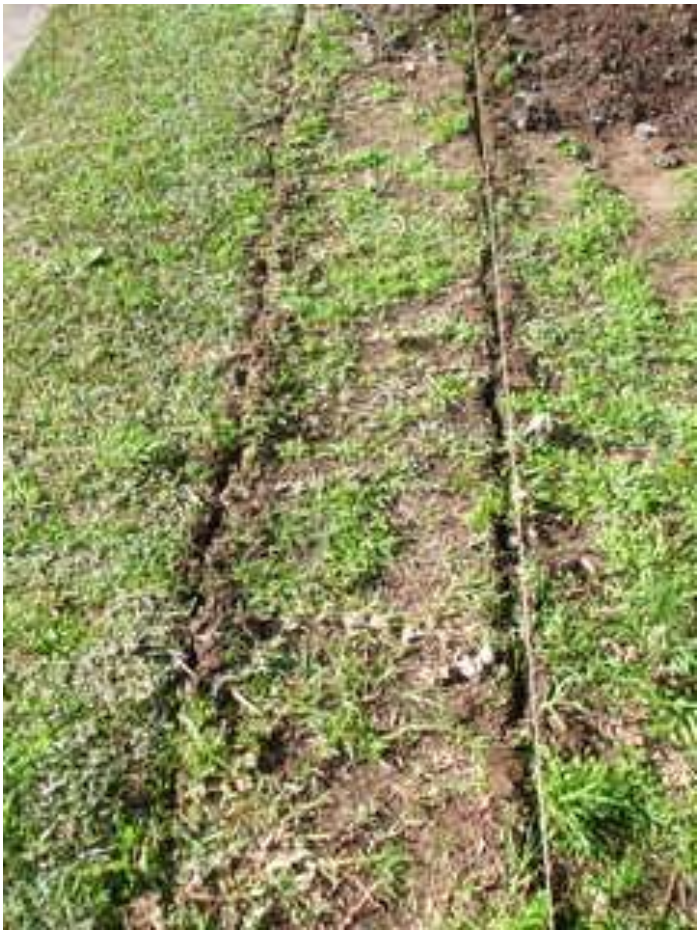
The northern boundary of the front yard is unmarked and somehow looks unfinished, particularly with the front hedgerow in place. Last year we used cuttings from the mulberry tree woven in between cut off tomato stakes to make a wattle fence and it looked pretty darn good. While it was made out of home produced and recycled materials it did only last one year and by the autumn was bug eaten and looking pretty crappy. Another problem was that recycled or not, it still didn't actually produce anything so it was time for a re-think.



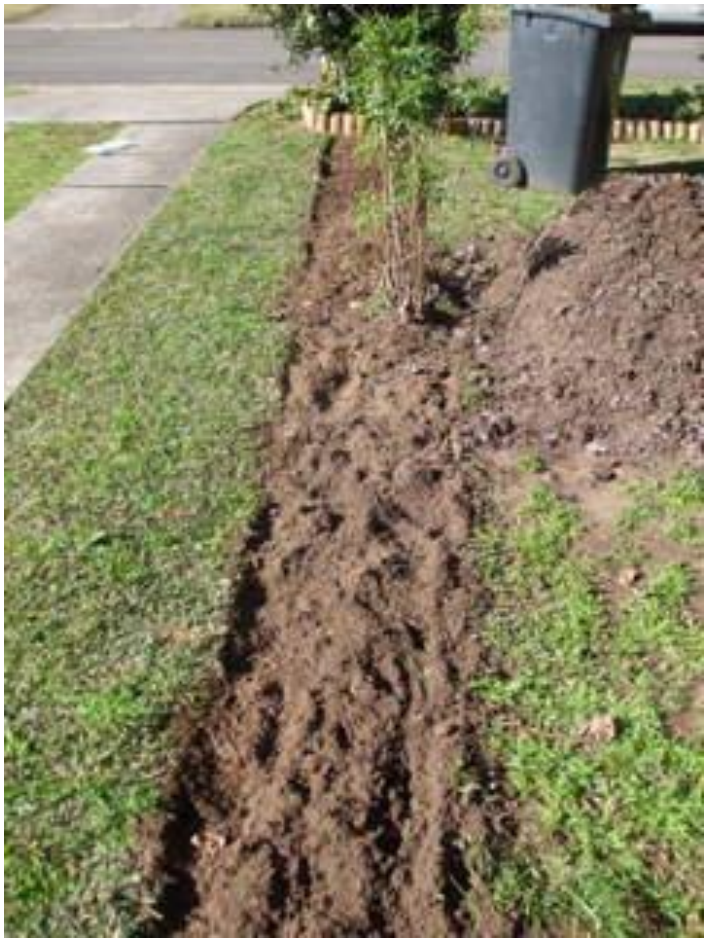
After considerable thought my lovely partner in crime suggested that a lavender hedge would be just the thing and being soft and fragrant it wouldn't cause any problems for our neighbours either. It would also produce lavender blossom and attract bees to the yard, so a lavender hedge it would be!

To start out I measured out the distance and ran a string line (made using a couple of sticks as stakes with the string wrapped around them) along one side of where the hedge was to go, then using a reasonably sharp spade I made a series of cuts into the lawn along the length of the string line to form one continuous cut. That done, I moved

the string line over by half a metre and then did the same thing on that side so that I had two parallel cuts in the grass along each side of where the hedge was to go.



In the way of the hedge was the elderberry “tree”, I used the inverted commas because it was a pretty scrappy and pathetic looking specimen. I had planted several sambucus canadensis (American Elderberry) plants years ago with the idea of producing berries and making a hedge, but all it did was send out suckers all over the place and not produce any berries. This was the last remaining remnant of that idea. The flowers are of some use so some of the material I dug out went into a pot for further consideration but by and large, everything in the way of the lavender had to go.

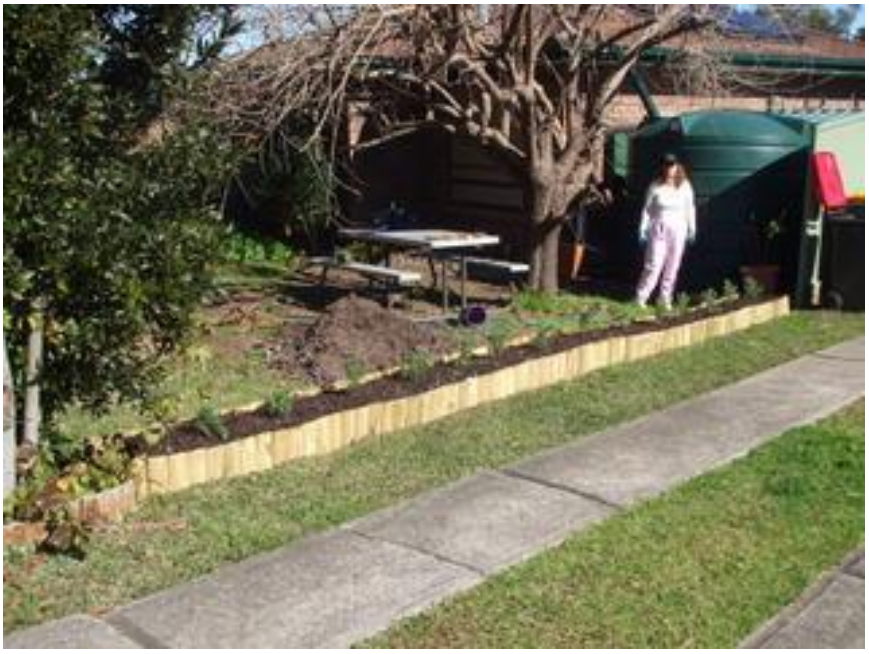


With the bed for the hedge marked out, I used my trusty mattock to dig out all the grass between the two cuts, this took considerably longer (the grass is buffalo and thick!) and was somewhat less fun that I envisaged but after a couple of hours the job was done. The next trick was to provide edging so that the lavender had a raised bed to grow in, they like good drainage and grow well in that environment and the one in our herb spiral has gone berserk.

To match the front garden we got some semicircular wooden logs wired together on end as a border, but they do have a tendency to fall outward under pressure of the growing medium the bed gets filled with. To prevent this we cut some stakes from the mulberry tree thinning and I hammered then in every metre or so around the inside of the border and then wired the border logs to the stakes.

As growing medium to fill it with, a mate can get mushroom compost free from where he works (a mushroom farm, funny that!) and half a ute later, the bed is full up. For the lavender plants themselves, we wanted French lavender like the one in the herb spiral, and given my druthers, I would have propagated my own from that bush, but that would have taken some time. Instead we got a good deal on a stack of 100mm pots of lavender from a local nursery and planted them. Before the weather gets too hot I'll mulch the beds as well to reduce evaporation and keep the roots cooler.

The hedge is started and it will take a couple of years to make a full scale hedge, but when it does it will provide lavender flowers and trimmings for use in things like teas and potpourri as well as in cooking and even perhaps for extracting essential oils from.



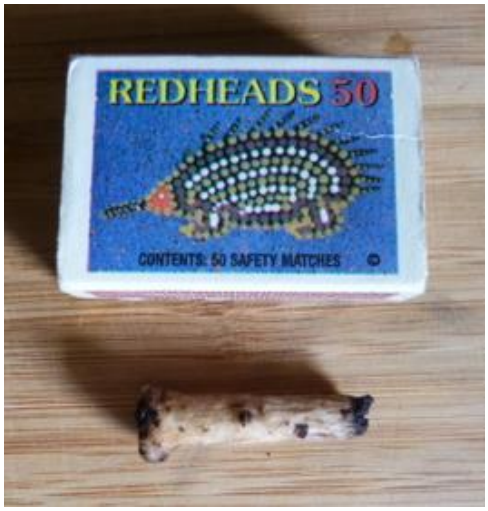
3.4 Growing Comfrey

Comfrey is wonderful stuff! It has long roots which mine the soil deeply for minerals, so deep that other plants can't reach, and then these minerals become available for other plants once the leaves are harvested for mulch or fertiliser. The leaves are rich in calcium, phosphorous, potassium and trace elements. The leaves are also rich in vitamins A and C and it is apparently the only land plant which contains vitamin B12. Small amounts of the young leaves can be eaten raw in salads or cooked like spinach. It is a herb which has many miraculous properties attributed to it but I have neither the qualifications nor experience that would enable me to comment on these claims.
The flowers are excellent bee forage and the plants themselves can be planted thickly to act as a barrier to running grass type weeds. The deep root system can impact on the soil structure positively as well, breaking up compacted soils.

My interest in the comfrey leaves stems from their ability to improver fertility in the garden. They can be used as a rich mulch or their nutrients extracted in the form of a liquid manure (covered in a different article). I have been developing plans for the understory of the **food forest area**, the **fruit tree circle** and other tree plantings which included comfrey as an understory plant. They would provide extra nutrients for the trees as well as allowing me to make the comfrey liquid manure from the leaves to use on the vegetable garden. Lots of comfrey leaves to use as high nutrient mulch would not go astray either!

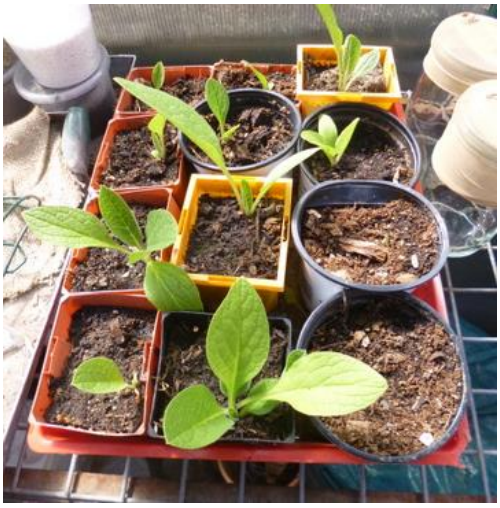
Propagating Comfrey

Comfrey is notoriously unreliable to start from seed but is generally propagated from crown cuttings and by root cuttings. Root cuttings is usually the cheapest way and I was able to get hold of 25 root cuttings for $19.95 from **Green Harvest** but when I factored in postage it work out to a bit over $1 per cutting.



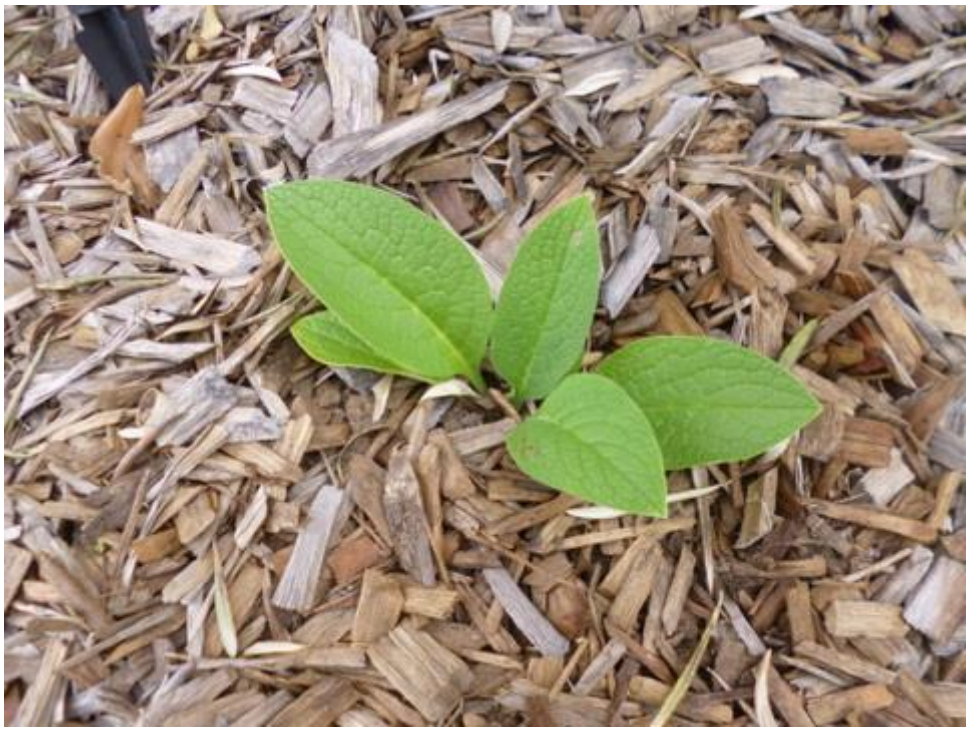
I got hold of 25 roughly 120mm diameter pots which I had floating around. This size pot is usually the sort that is used to house “potted colour” and other small ornamentals and when they have been planted out the pot quite often gets put to one side and forgotten or tossed out. They are usually available for the asking from friends and family and I have even seen collections of them stuck out on the footpath during rubbish collection days so you should be able to pick them up for nothing.

The containers I used were about 90mm deep and the information which came with the cuttings said they should be planted 30mm deep and kept moist until the first leaves appeared. The information said to plant the root cuttings in spring in cool areas or in the wet season in warmer areas. We have a greenhouse so I planted them as soon as I got them, or in other words about mid-winter.



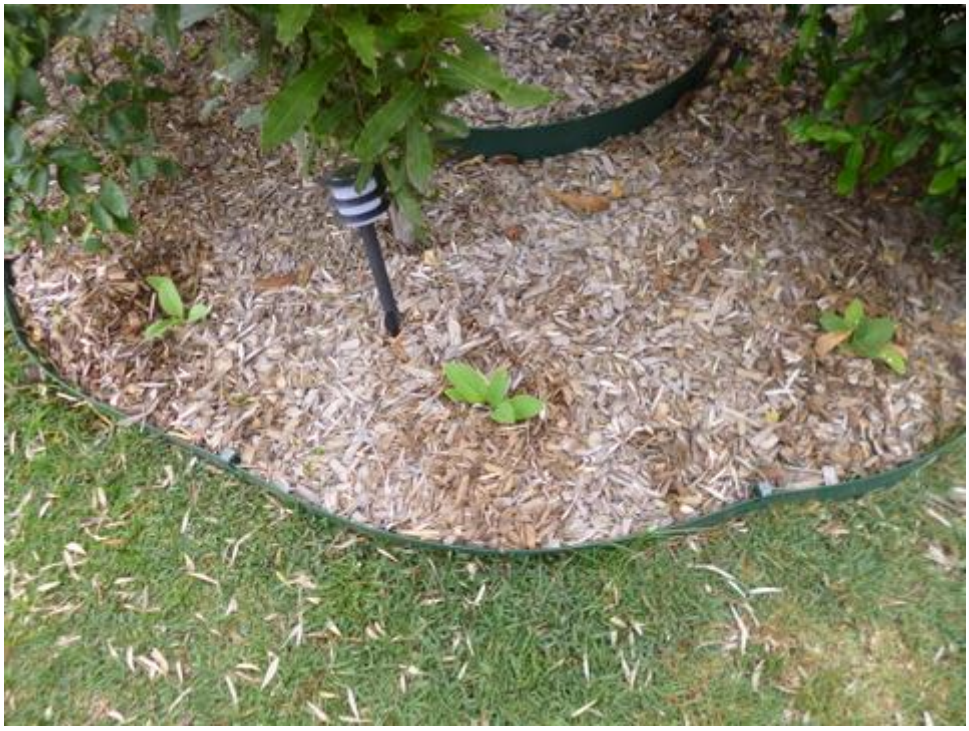
I made up some potting mix and half-filled each of the pots, placed a cutting horizontally into the pot (the cuttings were 25-30mm long so fitted easily) and then filled in the rest of the potting mix. I then watered each of the pots well to firm down the soil around the cuttings and to keep them moist. To make sure they stayed moist I place all of the pots onto capillary beds. A capillary bed is a tray (in this case an unused cat litter tray) with 50mm or so of coarse sand in it. The sand is kept moist and acts as a reservoir of water which makes its way up into each if the pots by capillary action, hence the name!

To fit all the pots I needed two trays, with one pot left over, which went into the seedling capillary bed. It was fun checking the pots every couple of days to see how many had sprouted. It took a few weeks for the first one and then they gradually came up over time. It has been almost 3 months now and all but 4 of the cuttings have sprouted giving a strike rate of just over 80% which seems pretty good to me.



I am now in the process of planting out my newly sprouted comfrey roots into the longitudinal food forest and I have planted one between each of the trees in the fruit

tree circle and still have a few left over to slip in here and there. This method is cheap, easy and quite reliable if you are after quite a few comfrey plants…..even I could do it!



3.5 Growing Garlic

When growing garlic, there is an old aphorism which says “plant it on the shortest day of the year and harvest on the longest day” and while I have tried this, all I can say is that it didn’t work for me!

I have tried garlic growing a number of times over the years, usually as part of our normal rotation in the veggie beds, interplanted with other vegetables. The results have always been disappointing: small bulbs with only a very small number of cloves to each bulb. We do go through some garlic so I thought it was time to get serious, and make a few changes to the way I grow!

Source Material

Most of the stuff available in our local supermarkets etc. seems to be imported, and most often from China which concerned me a bit. Thankfully a friend of mine runs an organic shop fairly locally so I bought a couple of Australian produced organically grown bulbs off her which I could use as my starting stock.

Planting

I figured that maybe the other veggies interplanted with the garlic may be having a detrimental effect and the competition for light and/or nutrients stunting the garlic’s growth. Also, while the garlic did most of its growing during the cooler part of the year I thought that maybe I was planting too late and giving it an earlier start might be beneficial.

So I decided that I would plant the garlic cloves in one of the wicking beds in the back yard, between the southern and central veggie beds, it gets good sun all year 'round and will be good for watering. Also it became free from the previous crop about mid-April, giving me a good two months start over my previous plantings.

The wicking bed is 1200mm x 1200mm and I set the planting up using four rows of four plants, equally spaced away from each other about 250mm apart and pushed each clove down to about 20mm -25mm below the soil surface.

Growing

While the cloves which I had planted started to sprout fairly readily as they usually do, they also grew quite quickly with the stems thickening up rapidly, whereas before the stems themselves were always quite thin and the resulting bulb small with only a few cloves. All I had to do was make sure the soil stayed moist (we had very little rain from the end of summer right through winter) and mulched with a thin layer of sugar cane mulch to make the most of the water we had.

Harvest and Storage

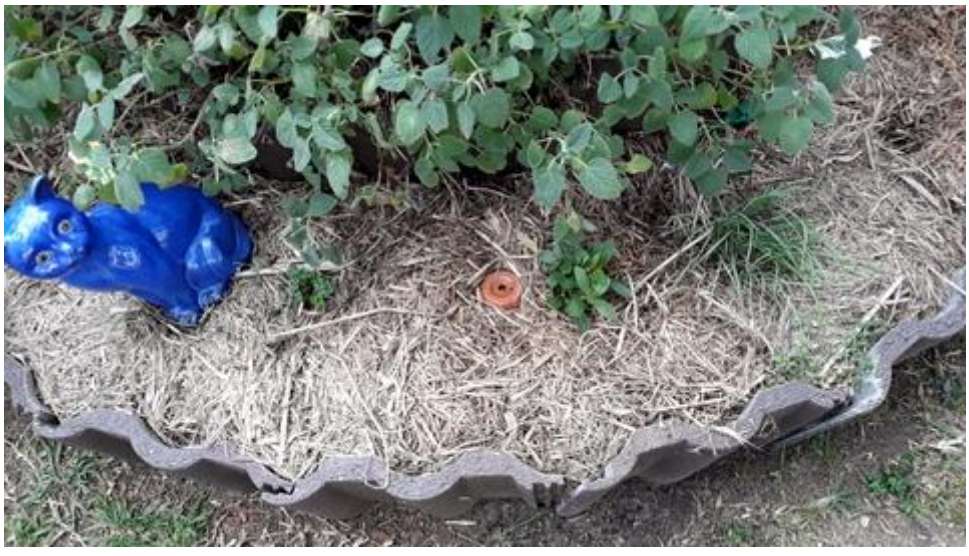
I was always a bit unsure on the timing of the harvest and usually just waited for the top to die back, as I did with onions, but it turns out that is not correct. The best time to harvest is when the leaves are dying back but the top 4 to 6 leaves are still green. In practice this equated to late October for us. I did scrape some soil away from the top of a couple of growing bulbs and while they were large enough, it confused me somewhat because the bulb seemed to be composed of one large clove; there were no ridges showing separate cloves. It seems this is normal and while the bulb is drying after harvest the separate cloves become more pronounced.

Harvesting the bulbs during dry weather is the best so that the skin is dry as a wet slimy skin can encourage fungal diseases and reduce storage life. To harvest I just pulled the bulbs and then rubbed any extra dirt off them and then placed them out of the sun (to avoid sunburn on the outer skin of the bulbs) in an airy space in the garage to dry out.

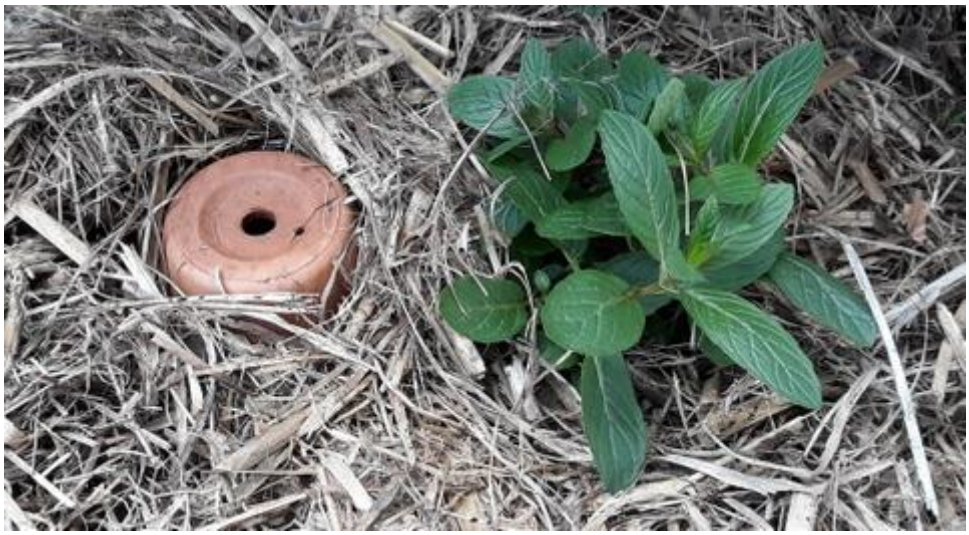
We will be storing the bulbs by hanging them up in bunches in the garage which will keep them dry and away from anything which might find them tasty (except me!).

If you are going to grow from your harvest next year, hard as it is to do, select the best bulbs and put them aside for replanting in the next season.

3.6 Growing Mint

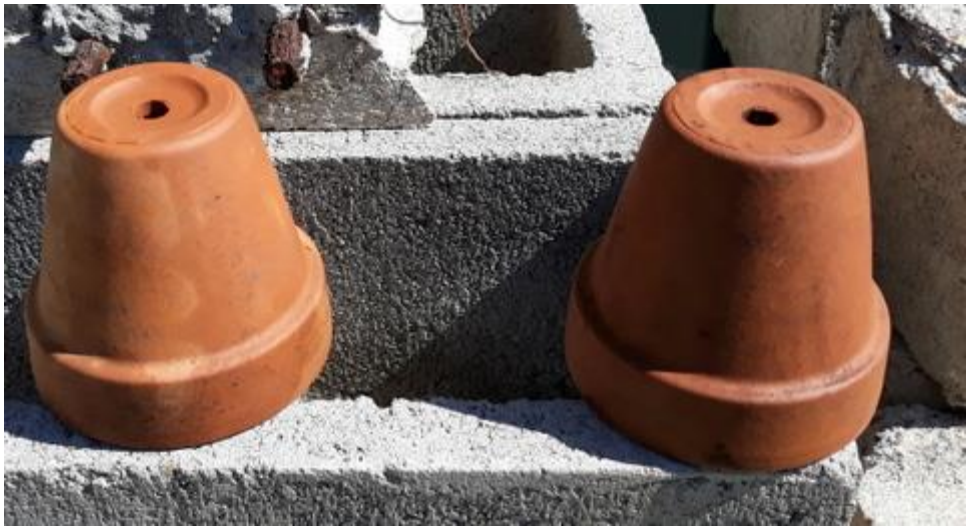


I'm sure we all have one plant (or maybe more than one) that just will not grow and flourish in our area, and for me that plant is mint! Over the years I have killed many a poor mint plant, trying many different areas and microclimates in our front and back yard, but the result was always the same. I can remember the luxuriant and healthy mint bush that would thrive near the back tap of our next door neighbour when I lived at home, and the tap was always dripping! That of course is the secret of happy mint, a constant water supply and out here it tends to get pretty dry, especially in summer, and there is no way I would put up with a dripping tap!

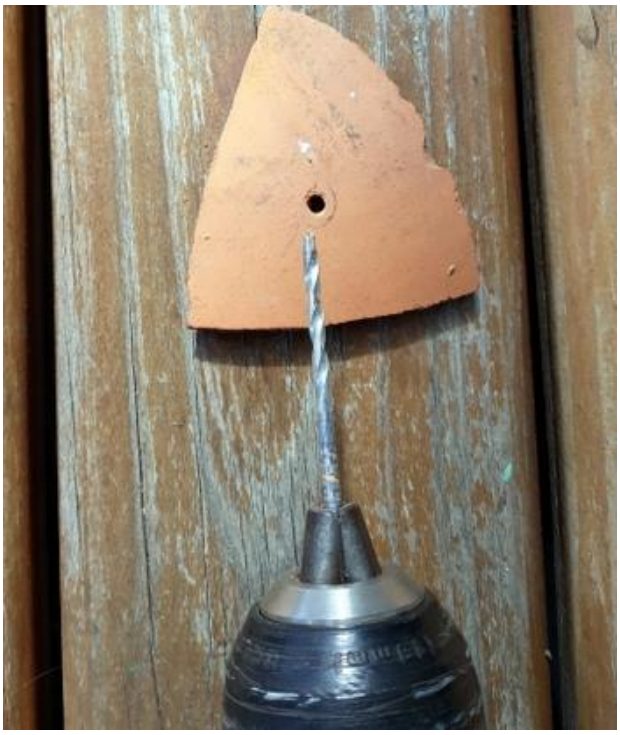


But I have just bought a punnet of spearmint, and planted into the herb spiral, because I have a cunning plan!

So many times in the past I have found that ollas work in similar situations, so why not again? Due to my idea of planting into the herb spiral, it would have to be a small one but I didn't think it would be a problem. I had a pair of unglazed terracotta pots that were 50mm across the base and 80mm across the top, already hanging around so I decided to use those.



My only concern was that the hole on the top (formally the bottom of one of the pots) was only about 8mm and getting the water in through a hole that size can take time. I do have a small funnel which exactly fits the filler hole but allowing air to get out as the water gets in is what takes the time. I decided that one possible fix was to drill a small hole beside the main filler hole that would allow the air to escape. I was unsure how to do it without completely wrecking the olla, but figured a small tungsten carbide tipped concrete drill might be worth a go!

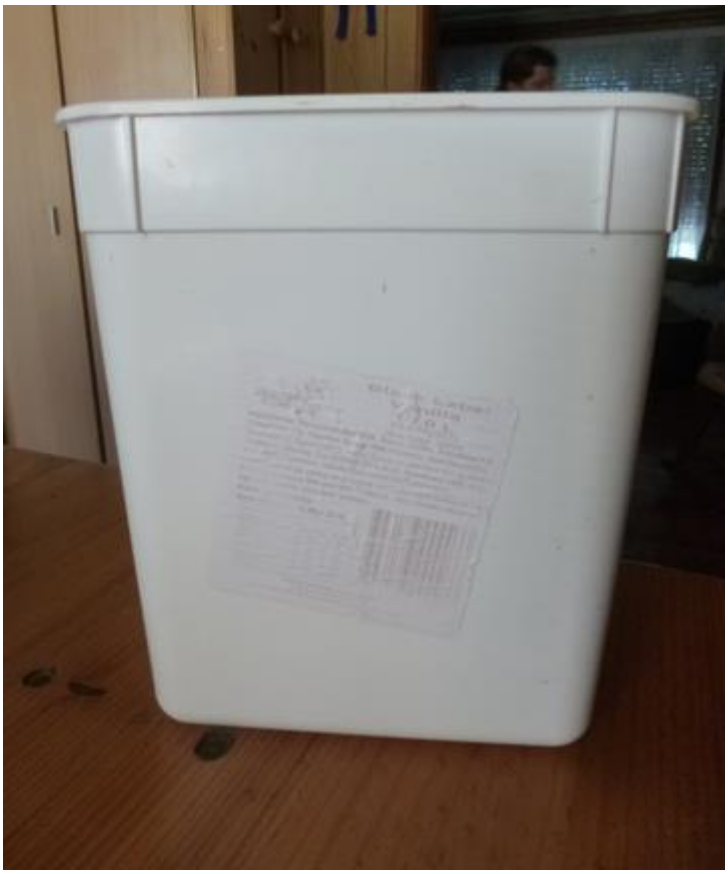


After searching around I found a 3mm one which looked like it might work, I gave it a go on a piece of terracotta pot and it worked perfectly. So I lined it up on the top of the olla and, again, it worked perfectly. With the olla installed I tried filling it using my funnel and the water went straight in, only taking a couple of seconds to fill the olla until it came rushing out the breather hole, so I was pretty pleased!

So far, it is working well keeping the mint hydrated, now we wait and see how it copes with the hot weather!

3.7 Making a Recycled Herb Garden

My elder daughter lives in a unit in western Sydney which has a large and a small balcony area. We did up a permaculture plan for the larger balcony but I left the smaller one out because it is really small and only gets light at certain times of the day. A while back I gave her some recycled containers that I got from a friend and she has gone full steam ahead and used them to create a herb garden on the smaller balcony.
The containers are white plastic ten litre ice cream containers, my friend runs a nursing home and they use this ice cream on a regular basis. If nobody has a use for them they are thrown out so I got hold of nine and kept three for myself (they are great for storing compostable materials before I toss them in the composter).



To create the herb garden all she did was drill a couple of 5mm drainage holes in the front, bottom of each container, then drill two holes in the back of each container near the top. Through these holes she threaded some thin rope and tied the buckets to the

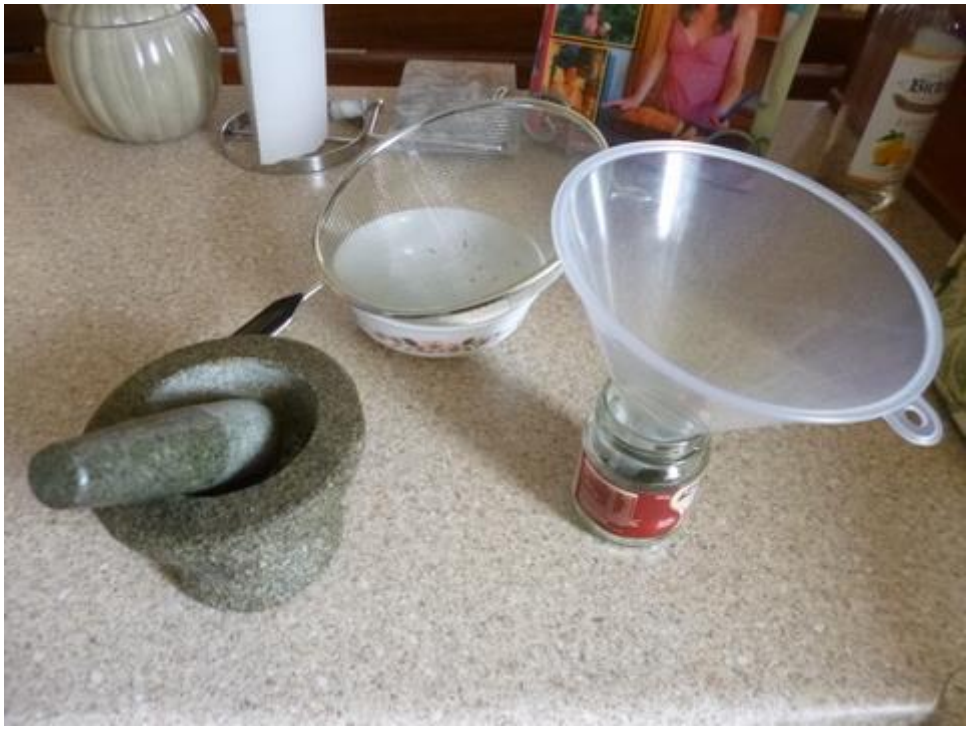
rail. The rope is sized so that back bottom of the containers are balanced on the edge of the bricks which make up the wall at the edge of the balcony and on which the steel handrail is mounted. This creates a tilting effect so that the water runs forward to drain holes and supports the containers so that most of the weight is taken on the bricks rather than on the rope.

She filled each of the pots with a good quality potting mix and then planted each of the six pots with a different herb – sage, parsley, chives, thyme, basil and mint. With everything in place she has a space that is newly productive, herbs to use whenever she wants and it has been accomplished by reusing containers which would have been thrown out!

3.8 Making dried and ground herbs

I was looking around at some formulations for homemade stock powder (or bouillon powder if you want to sound fancy) so we could make our own to replace bought-in stock cubes. Most of them had several powdered herbs in them, herbs which we were growing in the garden at the time. I figure at least some home-produced ingredients were a good idea in any stuff we were making for ourselves and I should dry and powder our own organic stuff rather than buy commercially prepared herbs. That is why I started producing our own dried herbs.

At the moment it is winter here. If the weather were warmer I would be using our solar drier and I am too impatient to just cut the herbs and hang them in a warm place to dry naturally, so I wanted to speed things up a bit. If you use your oven for cooking then you can use the residual heat after the food comes out to dry herbs. We have a Nectre bakers oven and I decided to use it to dry herbs, we have the fire going and it is heating the oven anyway, so why not?



We have some baking trays which have perforations to ensure that the heat circulates evenly and to help the bottom of the items being baked dry out and not go soggy, so I grabbed one of them. I placed a layer of rosemary cuttings on the tray, placed in the oven and left the door open so that the herb wouldn't overheat, driving off the essential oils as well as the water and thereby reducing the flavour of the dried herb. The heat seemed pretty gentle and there was no "rosemary" smell in the room so it did the job pretty well.

I checked how things were going every hour or so and then left the rosemary in overnight, because we let the fire die down anyway once we are heading for bed. The next morning the rosemary was nice and crisp but still with its characteristic odour so the process worked.

With the rosemary dry I stripped the leaves off into a bowl and then put small amounts of leaves (say half a handful) into our mortar and pestle. I would grind the leaves for a while then pour them out of the mortar into a fine colander, which allowed the finer particle size stuff to fall through into a funnel and from there into a glass jar. Any leaves not fine enough to make it through the colander were replaced back into the mortar for

more grinding. After 10 minutes or so of this all of the leaves had been processed and I had a third of a jar of fragrant rosemary powder.

My next trick will be to use my home dried herbs to make the aforementioned stock powder. More on that later.

4.0 Spices

4.1 Growing ginger

We like to cook Asian food of various sorts and nationalities and in the process we use quite a lot of ginger, so in the spirit of sustainability and reducing food-miles, I wanted to grow some. I have tried on several occasions both in containers and in the ground, but the result always seemed to be the same: one nice green shoot was produced and then the plant promptly died. In a fit of pique I decided to follow the old adage “if all else fails, read the instructions” and looked it up in my gardening books.

Ginger (Zingiber Officionale) is a tropical plant from the same family as turmeric (Curcuma Longa) and galangal (Alpinia Galanga) and my initial fear was that I could not provide the correct environment for it to grow in, however after some study I found that the most likely cause of my problems was lack of drainage. According to the books, ginger does best in a well-drained sandy soil with lots of organic matter because it is a heavy feeder. My problem had been the good old Sydney clay.

I decided to plant some in my main veggie patch where there was some clear space near the cucumbers that I had growing. Fresh ginger rhizomes start to send out white spikes in summer if not used quickly so I broke of four thumb-sized pieces which had at least one shoot each from our current supermarket-bought stock. I planted these into

the cucumber bed about 25mm down and about 500mm away from each other. I planted them in November but in September the bed had been deeply dug and a considerable amount of horse, cow and chook poo added. A newspaper and lucerne hay mulch was then laid down on top of the bed. At the stage when the ginger was planted the cucumbers were yielding well and planting the ginger had no effect on that.

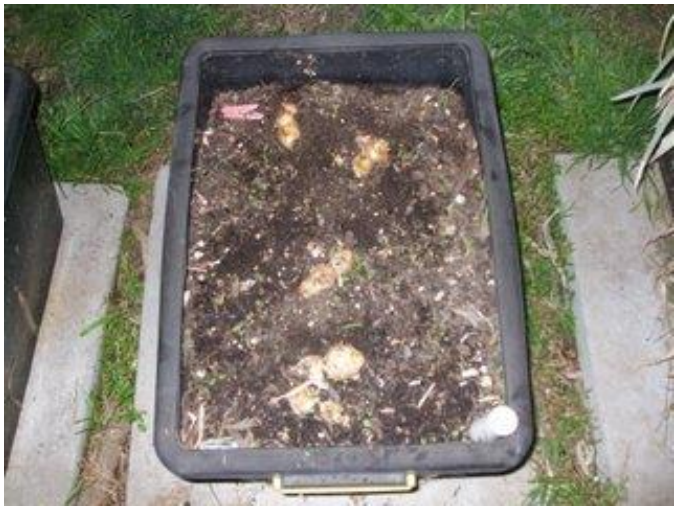
The ginger initially sent up one green shoot for each plant that were 25 to 50 centimetres high. As the summer progressed more shoots were sent up to the point where the rhizomes appeared to be 20 to 25 centimetres long. The books specify regular feeding, but the initial preparation must have been enough because apart from regular watering every three days or so, no other management was required. Certainly none of the other pests or diseases that occasionally assail my veggies showed the slightest interest in the ginger.

Again, the books state that ginger should be harvested in the late summer for fresh use or left until the leaves have died off in the late autumn if harvested for drying. I left my harvesting until the leaves were dying off and found the ginger was still OK for fresh use. The harvest was four large, unblemished rhizomes and the one I used immediately had excellent flavour, after which I had about a kilo or more of fresh ginger to store somehow. I left the two roots outside in the shade for a week to harden off the skin a bit (that was the theory anyway) and then had to work out a way to preserve them.

I wanted to use them as fresh ginger, as opposed to dried, pickled, candied or otherwise preserved ginger so I put some moist coarse river sand into a recycled broccoli box and put the box in the garage. This successfully kept the ginger in good condition throughout the winter. By late spring the remaining ginger had some serious sprouts and was a little dried out in parts although the flavour was still good. I was able to remove some of the sprouting rhizome and plant it inot the veggie patch where they did quite well.

I suppose the moral of the story is to be prepared to give growing anything a go and, when all else fails – read the instructions!

Update



This all happened some years ago and since then I have had variable response, but I believe that I have now hit upon the winning formula for growing ginger. Make yourself a self-watering growing container – see the article in the **Container Growing** area of the site – and then plant some sprouted ginger into that. The continually moist, rich, friable soil works a treat but there is one more little trick. I think that even though it is tropical, ginger probably grows on the jungle floor and has the protection of taller vegetation, the Sydney sun certainly seems to burn the living daylights out of it. To get around this I made a loop of wire at each end of the self-watering container and stretched some sarlon shade cloth over them to form a cover, breaking down the effect of the sun a bit. The effect of the shade and the water was a bumper crop of ginger, so give it a go!

4.2 Growing Turmeric

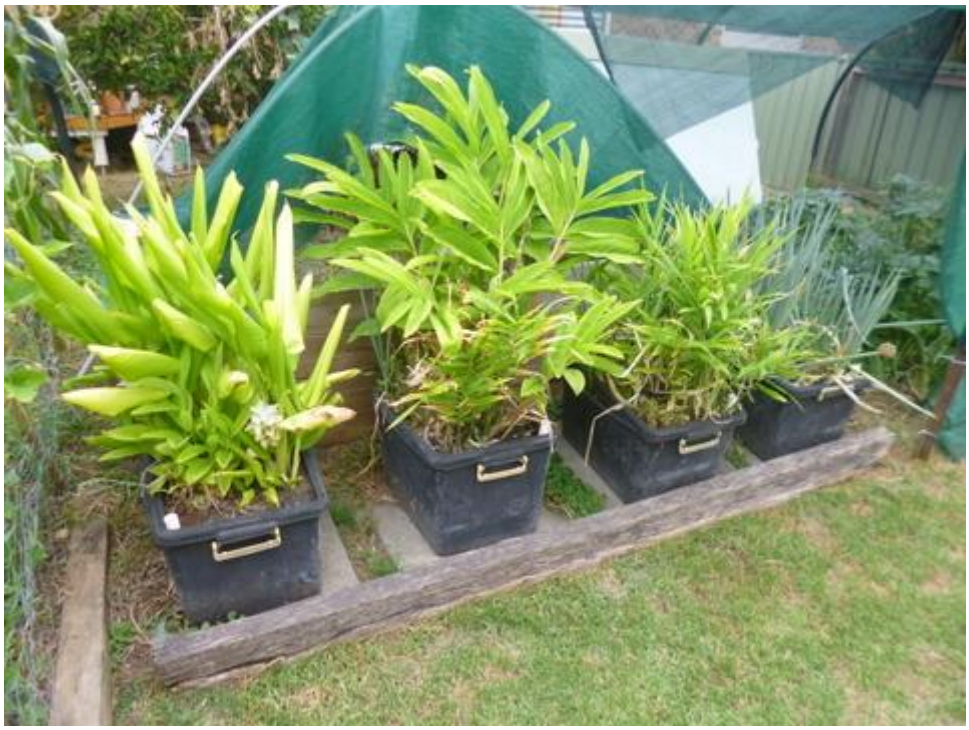
My relationship with turmeric did not start well. Our household was pretty anglo when I was a kid, so I had had almost no exposure to herbs or spices at all, but I was given a chemistry set one birthday and, believe it or not, there was a test tube full of turmeric in it. It can evidently be used as an acid/base indicator in solution or so I hear, but anyway to me it stunk. Thus it became a component of several poorly designed 'stink bombs' and that was about it for turmeric in my childhood, until I matured and found the amazing tastiness of Indian food!

Turmeric is a tropical plant so I wasn't sure how it would cope with the variability of the western Sydney weather, but I had developed a technique which worked well for ginger, and being related, I figured it would be worthwhile trying out the same idea with turmeric. Like its cousin ginger, turmeric likes lots of water, but at the same time needs a well-drained fertile soil and heat. The question was, how could I provide that? I found that the 'earth box', a self-watering container with a large water reservoir which I could make myself would do the trick. An article on how to build one can be downloaded **here**, and a YouTube video on constructing one can be found **here**.

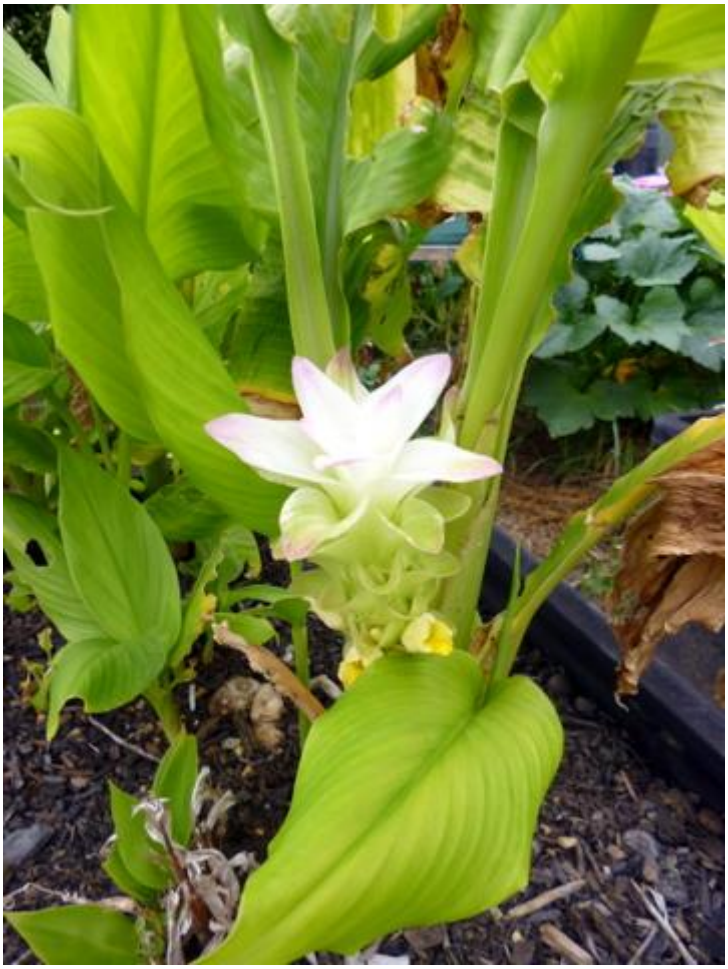
The advantages of the earth box were many –

1. The large water reservoir meant that the soil could be kept damp without the need for constant watering.
2. With the water being supplied from below by capillary action there was no danger of the roots becoming waterlogged.
3. Being a container, the growing medium could be designed to suit the turmeric's' requirements and,
4. The container being black, it made excellent use of the sun's rays to keep the plant warm, even warming the soil on a sunny day in winter! Also, being a black container means they warm up and get going quicker in the spring than if the plant were in the ground, which stays colder for longer.

When it came time to set things up I was able to get hold of some turmeric rhizomes from the local supermarket, although these days a friend of mine operates an organic shop and I would obtain organic turmeric rhizomes from her. This was springtime, about 8 years ago and I wanted to give it a go.



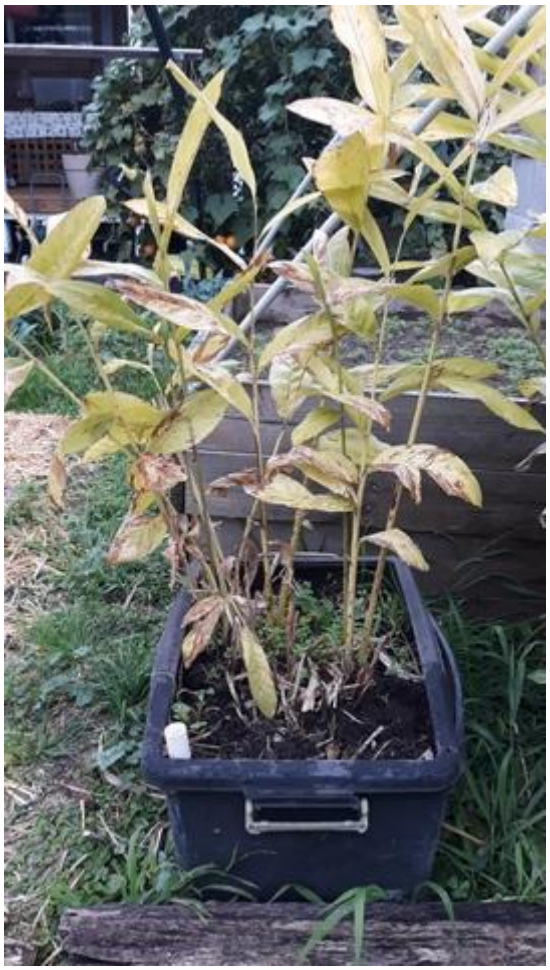
I made four earth boxes and then filled them with good quality potting mix, enriched by about 25% with our own compost. One was for the turmeric, the other three were for galangal, ginger and spring onions. I then planted some turmeric rhizome bits I had bought and broken apart so that each piece had at least one bud, about 2 – 2.5cm deep in the turmeric earth box, and then mulched it with some straw from the chook pen. My experience has been that they tend to grow fairly slowly, taking several years to expand to the point where I was confident that I could harvest some and leave the rest to grow. It has been only just this year that the turmeric is getting to the point where the earth box was almost full of rhizomes.



The books say the plants can grow up to a metre tall, and ours would reach that easily. They contribute to giving the backyard a wonderful, tropical feel and the turmeric flower is a real treat, so as well as being edible the plant is attractive too.

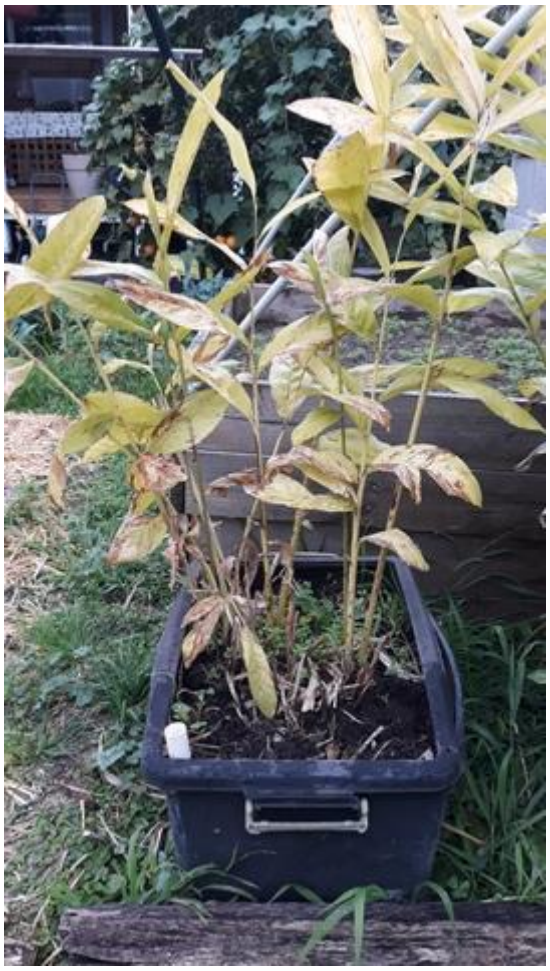
Another thing is that, so far, our turmeric has not been bothered by any pests or diseases, and so long as the water reservoir of the container is kept topped up, it just does its own thing really. This makes it an easy crop to grow.

Unfortunately, being tropical, they are not really fans of the western Sydney winter, especially when we get frost. They don't completely die back to the rhizome like ginger does but they do become pretty anaemic and scrappy looking during the worst of winter, but they do come back strongly when the warm weather returns.



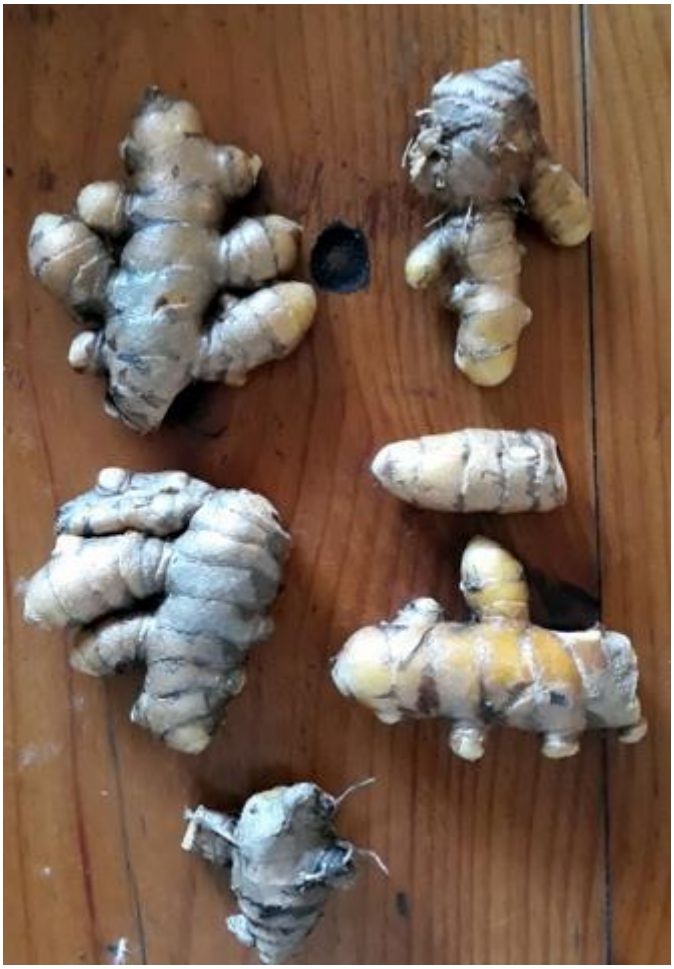
Using the process I have described above, I would think you could grow turmeric almost anywhere in Australia, although the further south you go the longer it would take to get a harvest. Still, if you are not a curry fiend or have to feed a family of 20, and have access to a warm sunny spot, I think it would be possible to grow a family supply of turmeric without too much bother.

4.3 Processing Turmeric



I wanted to harvest some turmeric to process into the spice, but it was summer (when the solar food dehydrator works best). Unfortunately I found out by experience that the rhizomes are very small and straggly during the warmer parts of the year and the best harvest time is late autumn and into winter. Lesson learned!

So now (June 2021) it was pretty cold in the back yard so I went out and dug around in the self-watering earth box and found some nice rhizomes to play with and process, while still leaving plenty to grow. This is what I found –



Cleaning

The rhizomes have quite and uneven surface and seeing as I have never really been a fan of dirt curry, the first chore was to make sure they were squeaky clean. Initially I gave the rhizomes a good wash off with tank water outside, then took them inside and broke away any of the branched ones so that there was no dirt trapped in the areas between to branches. It was then a simple matter to remove any remaining dirt with a stiff veggie brush in the kitchen sink.

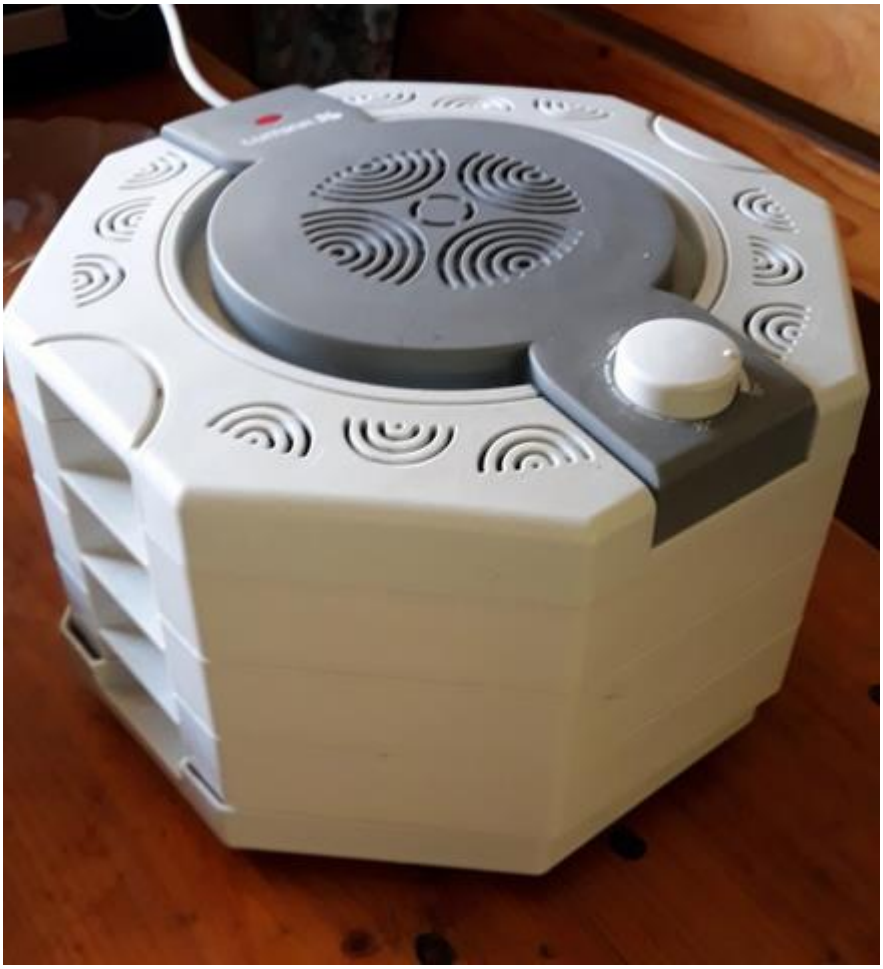
Boiling

The rhizomes need to be boiled before processing further. The boiling process gelatinises the starch in the rhizomes resulting in faster drying time and more even distribution of the rich colour which turmeric is known for throughout the rhizomes

being dried. It also removes the ‘raw’ aroma and makes them soft and easier to work with.

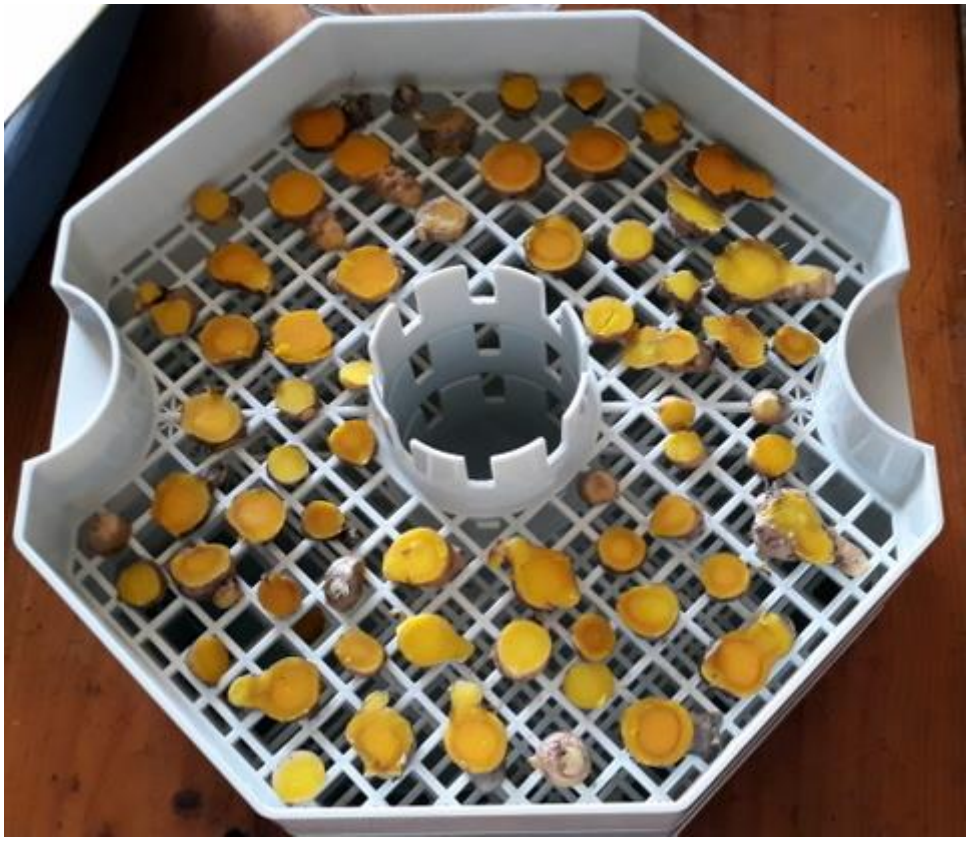
To boil them up I placed them in a pot with plenty of cold water in it, 20mm – 30mm over the top of the turmeric. I then used our solar powered induction cooker to bring the pot to the boil, reduced it to a simmer for about half an hour. The end point of the process is being able to pass a skewer easily through one of the rhizomes and once I could do that I removed the pot from the heat and fished out the turmeric to cool on a rack.

Drying



As previously mentioned, I had it in my head to use our solar drier to dry the cooked turmeric, but being winter and the weather was lousy for dehydrating food, I elected to

borrow an electric dehydrator from my daughter and use that. There was another issue also – from previous experience I know that the best I can get out of my solar offset drier is 60^{o}C, while the books I have read specify 70^{o}C as the best temperature. Is the extra 10^{o}C significant? I have no idea! But I thought I should mention it anyway and the dehydrator I was using would go up to 70^{o}C, so that was it!



To prepare the rhizomes for drying once they have cooled it is just a case of slicing them up into 3mm or so thick rounds, across the rhizome. They should then be placed in one layer over the dehydrator tray and dried until nice and hard and brittle. I had read that this could take some time so I set up and let it go. I put it on just after lunch and was considering leaving the process go overnight but when I checked about 7:00pm they all looked pretty dry to me so I just removed the drying tray and let them cool for a couple of hours, before placing the dried bits in a sealable glass jar.

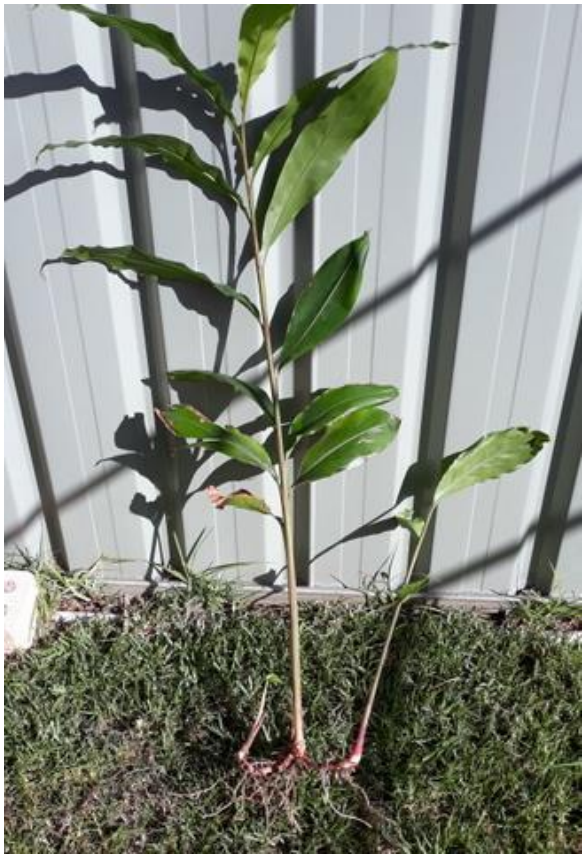
Grinding

While being a fun process, it has not given us the powdered spice we are looking for so the next trick is to grind them up. We have a spice/coffee grinder, but I am sure you could get away with using blender or some such. I tossed a small handful of the dried turmeric into the grinder and ran it for several bursts of a 10 to 15 seconds each. This resulted in a powder of variable particle size, so I sieved out the fine stuff using a kitchen sieve and returned the bigger stuff for another round and so on. I think I need a finer sieve but generally the powder seemed to work well when incorporated into a veggie curry!

OK, the next bit is based on very little thought and not much evidence, but here goes anyway! It is a generally accepted fact that whole spices will retain their flavour and aroma longer than the ground variety, mostly due to the very fine particle size of

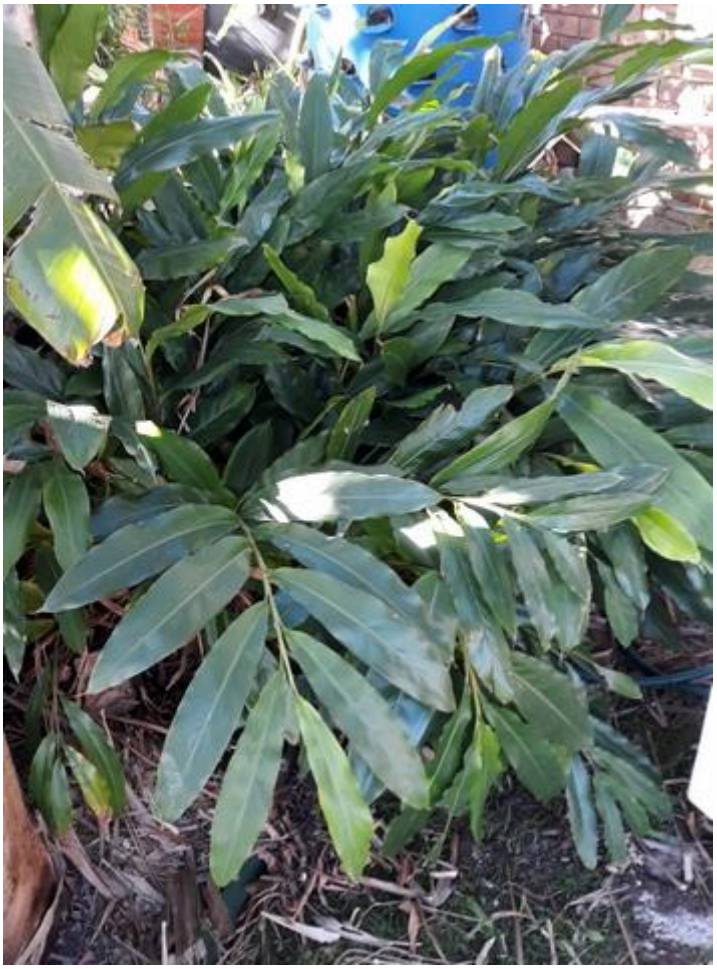
ground spices allowing volatile compounds to escape. Based on the same theory, we are retaining the dried turmeric rhizomes in the glass jar and only grinding them as we need to for use.

4.4 Growing Cardamom



It is interesting the things you find out!

Quite some time ago a friend of mine gave me some cardamom plant (*Elettaria cardamomum*) which I planted near our back steps in a spot which is somewhat shaded by our vigorous bananas in the banana circle. It has continued to grow, albeit slowly, but there has not been any evidence of flowering so far, much to my disappointment because I wanted to produce our own cardamom pods. Costa gets his to flower at his place, which is much closer to the sea, but still in Sydney. Was my problem due to lack of direct sunlight? A good question!



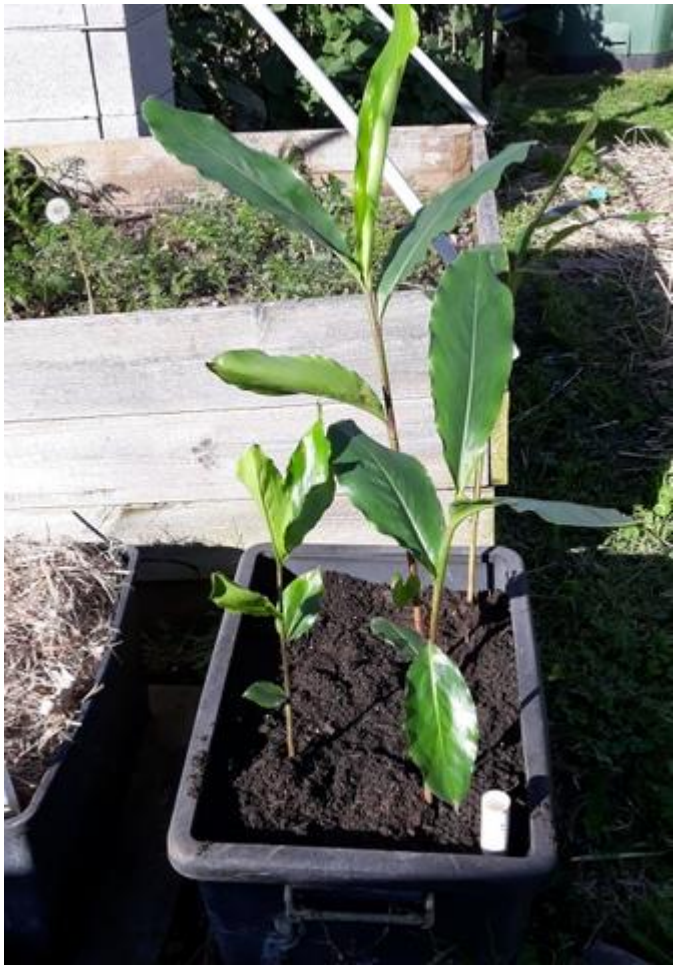
With the recent refurbishing of our black self-watering containers, I decided to transplant some of the cardamom plant from its sheltered space near the bananas into the same area where we grow other members of the Zingiberaceae family (notably ginger, turmeric and galangal). The area is in full sun and with the black self-watering

containers they get warmth all year round and also plenty of water, such that they are very prolific. It seemed to me that transplanting some cardamom there would make sense!

However, this is where things got interesting! I had not really done much with the cardamom since planting it there all those years ago, so I needed to do some research to find out the best way to transplant it. It was during those researches (thanks Jerry Colby Williams!) that I found out that the plant I have could actually be False Cardamom (*Alpinia nutans*) rather than True Cardamom (*Elettaria cardamomum*).

It seems that while the leaves of both plants can be used to flavour foods during cooking, the seed pods of the false cardamom taste like crap, while the seed pods of true cardamom taste like…… cardamom! (bet you didn't see that coming!).
(Note: for using cardamom leaves in cooking, James Wong in his book "Homegrown Revolution" on page 159 says that cardamom leaves can be added to coffee or tea, put whole in rice dishes such as biryanis or finely chopped in stir fries and Asian style salads)

From what I read, the only way to tell the difference between the two was the flowers, with true cardamom having white flowers and a pink throat while false cardamom has white flowers with a yellow throat. As previously mentioned, my cardamom plant has not yet flowered so I have no idea which one I actually have. However, another clue is that the false cardamom is more cold tolerant and drought tolerant than the true cardamom and we do get cold and dry out here in western Sydney. But, the area where it was growing is quite sheltered and may be well watered due to the water from the banana circle. So, I really have no idea!



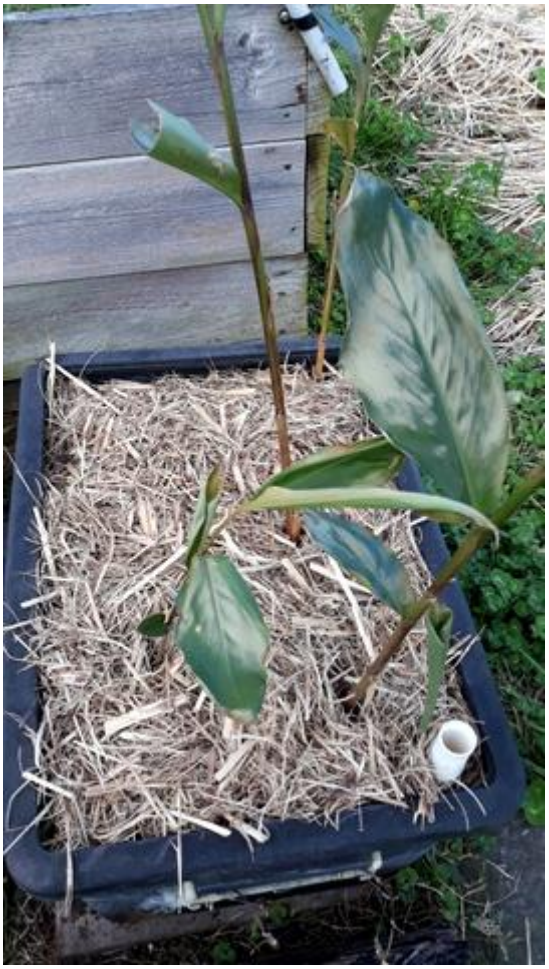
To resolve things I teased out some rhizomes with their associated shoots from the main plant, pulled them apart and planted them in the newly refurbished fourth self-watering container and mulched them with sugar cane mulch. There was obviously some serious root disturbance for the rhizomes I transplanted so on some I trimmed the leaves back by about 60% to reduce transpiration while the roots regrew. Others I left uncut to see if it made a difference.

Having accomplished this I now have to wait and see if my ministrations and relocation with result in the production of flowers, which will finally answer the question: True or false!

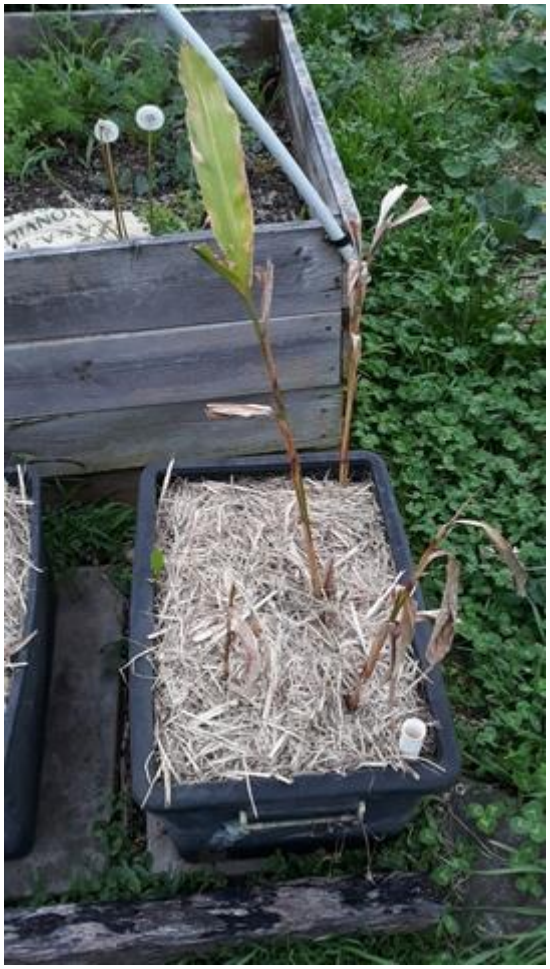
The adventure continues!

Update

After some of the cardamom was transplanted into the self watering container, a couple of weeks of cold weather started to make the cardamom look a little unhappy, and a further two weeks of continuing cold weather after that has resulted in some very sad cardamom shoots. Hopefully they will come back from the rhizomes when the weather warms up. However, the original cardamom plants over near the steps and under cover of the banana plants and awning have not changed! Maybe this is the real deal after all!



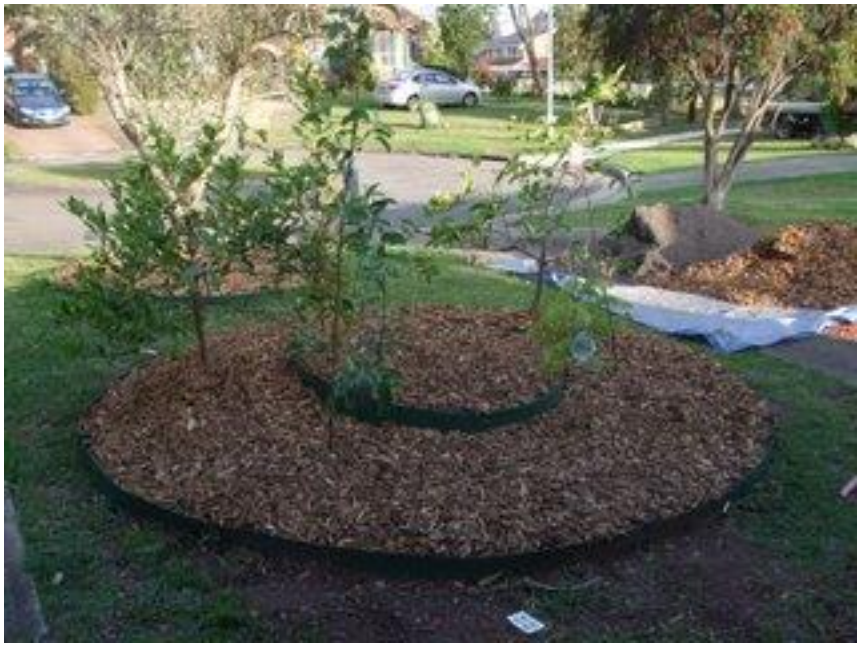
Two weeks on



Four weeks on

4.5 Fruit tree Circle

Years ago we planted a carob tree in the front yard, to provide carob for us to make our own chocolate substitute because my younger daughter could not eat chocolate at the time (she has since grown out of that particular food allergy). So we bought the tree, it was a bit over a metre tall when we planted it. Unfortunately, I didn't know much about carob trees; they grow slowly and my daughter had moved out before it finally flowered after fifteen years. The flowers didn't look right though and after some research I found out something else about carob trees – they are dioecious – there are male and female trees, and we had a male. No carob pods for us! It did keep us warm the next winter though and in its place I put in the fruit tree circle.



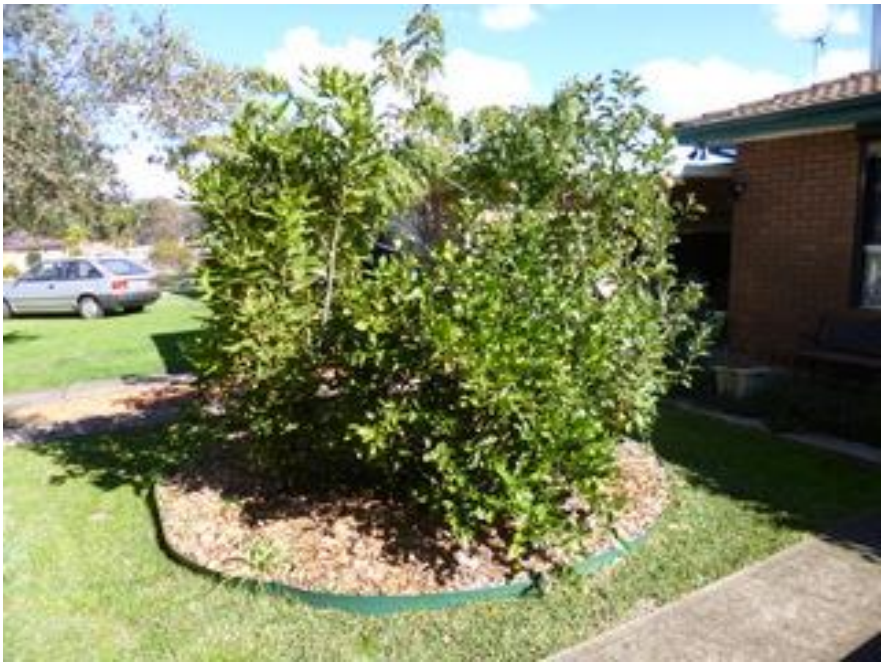
To replace the carob tree I wanted a denser planting of productive trees and plants so that the area would provide more useful products that the carob would have using a combination of dwarf trees and pruning. I had cut the carob tree down as close to the ground as I could but there was still some stump sitting up and I decided to make that the exact centre of the circle. To do this I got some rope and looped it loosely around the stump, at the other end (about 1.5 metres away) I tied a stake. Then using the rope and stake dragged around the stump I scratched a circle in the lawn 3 metres in diameter which became the outer limit of my fruit tree circle.

With the circle in place I then skimmed off the grass by shallow scraping with a mattock, for later composting and put down a layer of weed mat over the whole area. To set the boundary I got some garden edging 150mm deep dug down 50mm into the ground to give it stability. I needed something reasonably fertile to form the bed so I got in some organic garden mix (basically compost) and filled in the whole of the circle to the depth of the edging, but hilled up a bit in the middle.

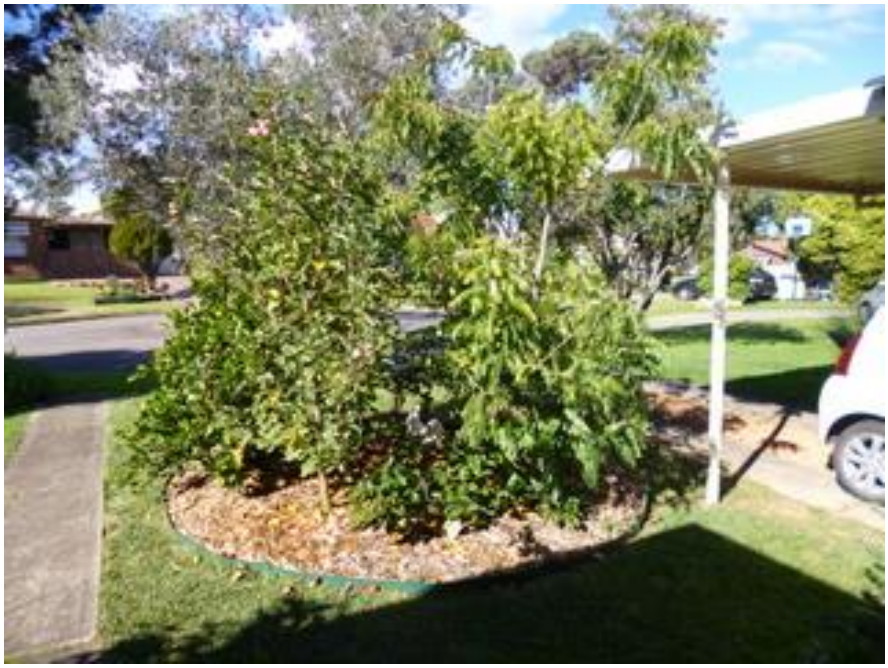
To give the circle a bit of interest (and to completely cover the stump) I marked out an inner circle a metre in diameter and then put in some more garden edging around the edge to give the centre extra height. This circle I also filled up with organic garden mix, fully covering the stump. Over the whole lot I then put a layer of wood chips as mulch. The wood chips are a long term mulch that take years to break down but they also have another advantage in that they attract beneficial fungi that work well with the trees.

My term “Fruit Tree circle” is a bit of a misnomer, it is actually two circles and the trees are useful but they are not all fruit trees. The outer circle sports two lime trees (Tahitian and kaffir) two apples (pink lady and gala – it is important to select varieties that cross pollinate!) both dwarves, a curry leaf tree, a macadamia nut tree and a dwarf lemon tree. The inner circle is growing 3 red current bushes.

To plant the trees I had to clear away the mulch and organic mix, cut through the weed mat, then dig down into the ground to get deep enough for the trees to be happy. So far the holes in the weed mat haven’t been a problem and the trees are growing well. Once the trees were planted the organic mix and mulch went back over the top and I watered them in to settle the soil and organic mix around the roots. Easy!



The three red currant bushes went in next but because there was deeper soil build up there was no need to disturb the weed matting. The red currants are inside the outer ring of trees to provide some measure of protection from what can be fairly ferocious Western Sydney summers. My experience of berry fruits has not been good so far; they look OK after planting but look a bit sick by the middles of summer. This trick seems to work because it has been three years and they are still alive and thriving.



At the centre of the circle, right over where the carob stump is slowly rotting away, we have a very high-class chook statue, but the trees have grown up so much it is not easy to see any more. Over the last three years the trees and bushes have spread out and created a nice shady area that the cats love to go in under and lie on. Personally, I would have thought the wood chip mulch would have been too uncomfortable but they seem happy enough.

We are yet to get macadamias (it may take a while) and it looks like we may get some apples this year, but it is great to be able to pick lemons and limes from the front yard as well as being able to pick curry and kaffir lime leaves for our curries whenever we want. We have also been able to share the leaves with family and friends. The only work required has been a once-a-year prune for the apples and occasional trimming up for the other trees to keep them open – and short!

5.0 Resources

Artistically Cultivated Herbs – Elise Felton – Woodbridge Press (US) 1995 ISBN 978 0 88007 07 1802 – This is a book, as the name suggests, is about growing culinary herbs in innovative and aesthetically pleasing ways. The first chapter is about the general requirements of growing herbs such as light, temperature and soil, making your own potting mixes, watering, fertilising, pests and diseases, and pruning and harvesting. Chapters two through eight are descriptions and plans for projects using and growing herbs. They are respectively: a herbal strawberry jar (pot); a window box of herbs; creating a herbal standard (ball on a stick); tying herbs onto a topiary frame; espalier using herbs; herbs in a moss covered hanging basket and creating bonsai with herbs. Chapter nine covers the propagation of ornamental herbs. The book has quite a few line drawings.

Hemphill's Herbs, Their Cultivation and Usage – John and Rosemary Hemphill – Landsdowne Press (AUS) 1983 ISBN 978 0 7018 1695 3 – This was my first book about herbs, and you will see other titles by the Hemphill's in this article. The initial part of the book is hints on using herbs, points to remember when propagating and cultivating herbs. The majority of the rest of the book is composed of a series of monographs on thirty one culinary herbs. Each monograph covers the common and botanical name, how the herb is propagated, a physical description of the herb, its history and mythology, how it is cultivated, harvested and processed, plus uses including culinary, medicinally, cosmetic and in companion planting. At the end of the book are a series of various culinary, cosmetic and medicinal uses for various herbs. The book has extensive colour photos.

Grow Your Own Spices – Tasha Greer – Quarto Publishing Group (US) 2021 ISBN 978 0 7603 6802 2 – After the introduction ('Spice – the final frontier in modern home food production') The book is divided into three sections. Section one – fast growing seed spices – Covers techniques for starting spices from seed followed by monographs covering cool season seed spices such as dill, coriander and mustard and warm season seed spices such as cumin, paprika and saffron. Each monograph covers an intro to the

spice, care, harvesting, a spice profile and required growing conditions. Section two – the spice underground – covers techniques for growing spices from roots bulbs and rhizomes followed by monographs covering temperate climate spices such as chicory, garlic and horseradish and monographs covering tropical climate spices such as ginger, turmeric and wasabi. Section three – perennial spices – covers growing techniques followed by monographs on Mediterranean and temperate perennial spices like capers, bay leaves and lavender, followed by monographs on tropical and subtropical perennial spices such as cinnamon, allspice and vanilla. The book has lots of colour photos.

How to Grow culinary Herbs and Spices the Natural Way – Charlotte De La Bedoyere – Search Press Limited (UK) 1994 ISBN 0 85532 751 0 – The book is composed of a series of forty two monographs, mostly one page but some two page, on a variety of herbs and spices, arranged alphabetically according to the first letter of their botanical name. Each monograph states the herb or spices' Latin name, common names, family, annual/perennial, height, favoured soil type, sun required, how they are propagated, main chemical constituents, cultivation, varieties, history, preserving and main uses as well as one or more colour photos. At the end of the book are a few pages on organic gardening, pests and diseases, propagation, designing a herb/spice bed and preserving herbs and spices. The book has lots of colour photos.

Vanilla Orchids – Ken Cameron – Timber Press (US) 2011 ISBN 978 0 88192 989 8 – While this is an incredibly detailed scholarly text about vanilla there is lots of good information on how to grow, harvest and treat vanilla pods, including making your own vanilla extract. The book has an introduction and ten chapters, the introduction covering vanilla as a flavour and fragrance. Chapter one talks about the origin and domestication of vanilla species, chapter two covers the evolution and geographic distribution of vanilla species and chapter three cover the plant structure. Chapter four discusses profiles of select vanilla species, chapter five covers vanilla hybrids and chapter six talks about vanilla's closest orchid cousins. Now for the good stuff! Chapter seven covers cultivating vanilla at home and in the greenhouse, chapter eight covers pollination of vanilla flowers, chapter nine talks about vanilla harvesting and processing

and chapter ten covers commercial vanilla products. There are 140 colour plates in a section at the centre of the book.

Garlic – Penny Woodward – Hyland House Publishing P/L (AUS) 2014 ISBN 978 1 86471 199 – If garlic is your thing, or you want it to be, this is a fantastic resource! The book is broken up into six sections. Section one (what is garlic?) talks about the plant, how it got is name, the chemistry of garlic, its history and its effect on breath and body odour. Section two (Growing garlic) talks about the accepted wisdom in detail on how to grow garlic, growing for sale, stories from growers and pests and diseases. Section three covers growing other garlicky plants including elephant garlic, garlic chives, garlic mustard, ramsons and society garlic. Section four covers harvesting, curing, storing, plaiting and preserving garlic. Section five covers cooking with garlic in general terms like choosing the type of garlic to use, preparing it, storing it in the kitchen, skin removal and how to use the various parts of the garlic plant and then provides a series of 40+ recipes. Section six covers medicinal uses including folk remedies. The book has lots of colour photos.

Herbs, How to Grow Them, How to Use Them – Susan Tomnay – Leisure Magazines (AUS) 1988 ISBN 0 7302 0116 3 – Not huge amounts of detail, but lots of pretty pics! Most chapters a 2 to 4 pages long. The first chapter covers how to grow herbs including a companion planting chart, the second chapter covers growing herbs indoors, the third chapter covers propagation. The fourth chapter is about designing a herb garden, the fifth chapter is a 'dictionary of herbs' covering 38 herbs with a few paragraphs on each one and a colour photograph. The sixth chapter covers herbs around the house and the seventh chapter is on herb teas. The final two chapters are on drying and preserving herbs and cooking with herbs (30 pages of recipes). As mentioned previously, the book has lots of colour photos.

Herb Drying Handbook – Nora Blose & Dawn Cusick – Sterling/Lark (US) 1993 ISBN 978 0 8069 0281 7 – This is another book with LOTS of colour pics. It is broken up into two parts, part one (harvesting and drying techniques), after a few comments on harvesting talks about air drying, using desiccants, microwave drying and pressing. Then, after 13

full pages of colour pics, it talks about basic tools required for dried herb craft for a page. Part two (herb profiles) is a series of 58 one-page monographs on culinary, wild and medicinal herbs. Each monograph has an introductory paragraph, followed by a paragraph on how best to dry that particular herb, followed by a paragraph entitles 'Cuisines and Crafts' that talks about uses for the dried herbs. As mentioned earlier, lots of colour photos, mainly in part one.

Herbs – Jack Harvey – Macdonald Educational (the book was published as part of the 'Macdonald Guidelines' series (UK) 1978 ISBN 978 0 356 06004 7 – This is a small book that covers a lot of subjects with small amounts of details. The book is divided up into three sections, section one (Information) talks about man and the use of wild herbs, ancient herbalists and the physick garden, drugs and distractions, the scientific case for herbs and dyes and perfumes. Section two (Activities) talks about growing and drying herbs in general, growing them in pots and window boxes, cooking with herbs, making herbal oils, using wild herbs, potpourri and making herbal cosmetics. Section three (Reference) gives an A – Z of herbs in a series of two paragraph monographs covering over 200 herbs in 8 pages. It also gives an index of Latin names, list of (UK) suppliers and a book list. Some colour photos with lots of B&W photos and line drawings.

Herb Growing – Violet Stevenson – Sampson Low (UK) 1977 ISBN 978 0 562 00074 8 – This is another small book covering many herb aspects in moderate to low detail. The book has ten chapters of varying lengths (3 to 10 pages) covering in order: what is a herb; herb gardens; colour in the herb garden; herbs from seed; herbs in limited spaces; herbs in winter; cosmetic and potpourri herbs; drying herbs; wild herbs and uses of herbs. For a small book it has lots of colour photos and coloured line drawings.

Spice Travels – Ian Hemphill – Pan Macmillan Aust. (AUS) 2002 ISBN 978 0 7329 1151 6 – This is not a 'how to' type of book but more a travelogue of the Hemphill's travels around the world (including India, Turkey, Mexico, Sri Lanka, Zanzibar and outback Aus) looking at how spices are grown, processed and traded in each area. Chapter titles include: Brotherhood of spice merchants; organic spice gardens in Mangalore; we meet the cardamom king and barking up the wrong tree. It is a well-written and fascinating

book if you are interested in spices. There are a number of colour plates in the centre of the book.

Garden Herbs – Frances Hutchison (Consulting Editor) – Fog City Press (US) 2003 ISBN 978 1 876778 94 4 – This is not a large book, but it is over 300 pages long and has lots of detail. After a couple of pages on 'how to use this book' it has four main sections. The first section (Growing Herbs) talks about the characteristics of herbs, climate, topography exposure and moisture, soil, garden planning, style and design, container gardening, choosing plants and propagation. The second section (Maintaining Your Herb Gardening) covers watering, weeding, adding organic matter, composting and preventing pests and diseases. The third section (Preserving, Storing and Using Herbs) covers what it says including herbs in the kitchen and aromatherapy. The fourth section (Plant Directory) makes up two thirds of the bulk of the book, comprised of over 200 one-page monographs providing information on climate and soil, growing habits, parts used, growing guidelines, flowering times, pest and disease prevention, harvesting and storage and uses. Each monograph has a colour photo of the herb covered.

The Herb and Spice Bible (3rd ed.) – Ian Hemphill – Robert Rose Inc. (CAN) 2014 ISBN 978 0 7788 0493 2 – This is a massive book, it is A4 format, 800 pages long and the premier work on using culinary herbs and spices. Part one of the book (The world of Spices) only takes up 22 pages and covers subjects such as a short history of the spice trade, the difference between a herb and a spice, culinary and medicinal herbs and spices, essential oils, oleoresins, essences and extracts, growing and drying your own herbs, buying storing and using fresh and dried herbs and spices. Part two of the book (spice notes) takes up a bit over 400 pages. It is a series of almost 100 detailed herb and spice monographs. Each monograph covers detail on names of the herb or spice, its background, discussion of the plant, how it is processed, how to buy and store it, how to use it and generally there are a number of associated recipes with each one. Part three (The art of combining spices) takes up the remaining 100+ pages, discusses the principles of spice blending, using herbs in spice blends and the herb and spice combination pyramid. The book then provides detailed recipes and production techniques for spice blends – almost 70 of them, every one that I had ever heard of and

a lot I hadn't. The book has lots of colour photos and if you are interested in using herbs and spice and/or making your own blends, this book is a must have!

The Potential of Herbs as a Cash Crop – Richard Alan Miller – Acres USA (US) 1985 ISBN 0 911311 10 6 – Obviously this is a book about small scale commercial growing of herbs rather than backyard scale. The book talks about survival of the small farm through alternative agriculture, soil considerations, basic farm practices and machinery, farm planning, techniques for bulk dehydration and storage of herbs grown on the farm. Also covered is processing, retail and bulk marketing, how herb growing and processing works as a cottage industry and the forager and his role in crop production. Scattered throughout the book are on-page monographs on particular herbs discussing how it is grown and processed commercially. There are a few line drawings in the book.