

# Grow it!

Growing Fruit & Nuts in the Top of the South



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# Why grow fruit & nuts at home?

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There are heaps of reasons! As well as getting real satisfaction from producing your own food:

- ✓ Your fruit will be fresh and delicious.
- ✓ You can grow fantastic varieties that you don't usually find in the shops.
- ✓ You'll save time and money on shopping for food, and you'll find it easier to eat a healthy diet.
- ✓ Your fruit will be free of chemicals.
- ✓ Your garden will look beautiful.
- ✓ Your kids will learn first-hand where their food comes from.
- ✓ Growing, watching and picking fruit is a fun family activity.

Of course, you'll want all your efforts to 'bear fruit' and be a great success!








This guide will:

- help you choose plants that suit your property
- show you how to plant and care for them
- suggest varieties that suit home gardens in the Top of the South
- suggest website links and books with more detailed information and advice.



## The Top of the South region



	Mild temperatures, high rainfall (2000–4000mm), especially at altitude.
	Sunny, sheltered, rain mostly in winter/spring (approx. 1000–1800mm). Warm summers, mild winters.
	Warm summers, mild winters, strong winds from the N.W. Rain approx. 1300–2000+mm.
	Cooler, rain approx. 1500–2000+mm, gales at times, snow in winter.
	Very warm summers with dry N.W. winds, moderate winters. Low rainfall (approx. 500–1200mm), mostly in winter.
	Very warm summers with dry N.W. winds, moderate winters. Low rainfall (approx. 500–1000mm), mostly in winter.
	Mountain areas, valleys and basins – wetter and colder.

# Part 1

## PLANNING

The climate in the Top of the South area suits a great range of fruits, although there are some differences across the region that affect what you can grow.

### *Rainfall*

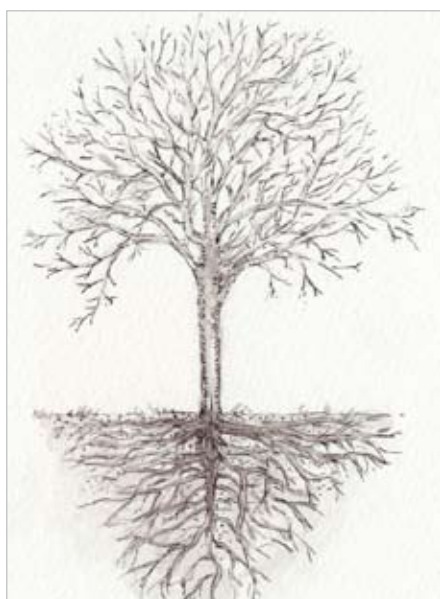
The most obvious one is rainfall – the map shows a big difference from west to east, with moist conditions that suit subtropical plants in Golden Bay, through to the dry areas near Blenheim that are famous for olives and grapes.

### *Wind*

There's also quite a difference in winds, especially in the east, which gets cold sou'-westers in winter, and hot nor'-westers in summer. If your property is exposed to strong winds, you'll need to create shelter.

### *Frost*

If you're near the sea it will be less frosty, so you might be able to grow some subtropical plants in sheltered spots. If you're a long way from the sea, you'll have to consider whether the fruits you want to grow can handle frost, especially in spring when they're flowering.



#### **Leaf zone and root zone**

Note the drip line from the ends of the branches – this shows you how wide to spread fertiliser and mulch.

### **Get to know your site**

Most large fruiting plants need full sun. Smaller bushes and canes can handle some shade.

A typical town property will have several pockets (microclimates) that will particularly suit certain plants. Walk around your place at different times of the day, and in different seasons, and take notes about:

- the sunshine in various places – what time it arrives and leaves
- where north is
- places that get waterlogged (this can kill the plant)
- places that are sheltered from rain by a building e.g. under the house eaves
- where frost lies on winter mornings
- where the main winds come from in each season, and how strong they are
- any sheltered spots that could be used for tender plants
- how much space there is for plants to grow (width, height and root zone).

Think about other areas that you don't want to crowd or shade. Also think about whether your trees will create problems for your neighbours when they're fully grown (e.g. blocking the view, producing unwanted shade or annoying leaf litter).

It's important to know where underground pipes are (e.g. water, stormwater or sewage), as tree roots can cause expensive problems later on.

It can be hard to picture the full-grown size of the baby tree that you plant – it helps to put sticks in the ground to mark out its future spread. Remember that the root zone will spread about as wide as the branches (see the diagram).

It's worth taking the time to draw a plan of your property – it means you'll fill every suitable space as time and money allow.



## Factors to consider

### Factors that affect plants

#### Sun

Most fruit trees need at least six hours of direct sunlight per day. North-facing areas will usually deliver this. Early-morning sunshine is good for quickly drying out the leaves, which helps prevent some diseases.

Remember the sun is much lower in the winter, and it can be surprising how long the shadow from a building or tree gets at a time when you most want the sunlight (see the diagram below).

#### Wind

Strong wind can damage plant growth, stop insects from pollinating the flowers, and make the fruit fall before it's ripe. Edible plants grown close together as a hedge (e.g. feijoas, olives) make good windbreaks.

#### Water

Make sure you can get a hose to your plants. You'll need to water them regularly during the first year after planting; also if they're in containers. Once they're established, water them in early summer and occasionally during ripening, to make the fruit juicy and help the plants resist pests and diseases.

If you're in a dry area near Blenheim that has light, stony soil, water little and often – otherwise the water just drains away and is wasted. If water lies around the planting site for several days after rain, dig some drains to guide the water away so it doesn't kill the plant's roots.

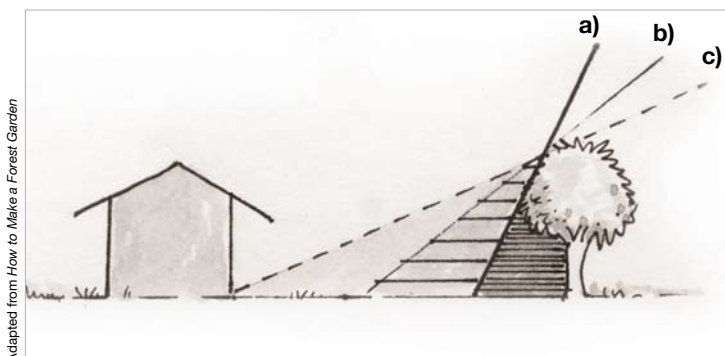
#### Type of soil

The quality of the soil is important, as fruiting plants stay in the same place for a long time. They grow best in free-draining, fertile soil. If your soil doesn't fit that description, you'll need to:

- choose the kinds of plants that suit your soil (see the section 'Part 3 – Essential Plant Info')
- add plenty of organic matter when you prepare the planting area.

A simple soil test is to dig up a handful of soil and pick out any sticks and stones. Dampen it, squeeze it, and see if you can mould it into a sausage shape.

- Clay soil sticks together and holds water, so it moulds well. In summer it can bake solid. It's usually full of nutrients, and just needs to have plenty of organic matter and a dose of gypsum worked into it.
- Sandy soil is light and gritty, and won't mould in your hand. It drains easily and lacks nutrients, so it needs heaps of organic matter worked into it to hold water and provide nutrients.
- Silty soil, which is ideal for growing fruit, is in between these. It sticks together when you mould it, but falls apart if you press the 'sausage' flat. It's free draining and high in nutrients. You'll find silty soil on old river flats e.g. Renwick.



#### Sun angles:

- a) Sun is high in summer, casting a short shadow.
- b) Autumn and spring positions.
- c) Sun is low in winter, casting a much longer shadow.

## Factors to consider

Having clay is not always a bad thing. Atawhai clay is rich in nutrients, once you've added gypsum and lime to make them available to plants.

The Wither Hills area has stony clay similar to Atawhai's. Unfortunately, Moutere clay contains less goodness, and nutrients need to be added.

### *Frost*

If you have serious spring frosts, don't get plants that flower early, as frost can ruin the blossoms – and the whole season's crop. Grow tender plants next to a wall or fence so you can make a shelter to protect them on frosty nights (see the diagram below).

Cold air flows downwards and 'pools' in low places. Make sure the cover doesn't form a hollow over the top of the plant, as the frost could concentrate there and damage it, instead of sliding away from the plant.

### *Protection from birds*

For some fruits, the birds will take the lot just before they're ripe enough for you to pick. Group at-risk plants together and protect them with netting. Growing fruit trees on wires makes this easier.



### **Frost protector:**

Cover tender plants for the night when heavy frosts threaten.

## A Riwaka gardener

One absolute necessity when planting berries is to protect them from birds. Cover them all with netting. Otherwise there's open slaughter and not a bite for the belly.

I've stapled bird-netting right down the side of the house then pegged it to the fence, forming a roof, and some more is draped over the ends.

In there, we have white, black, and redcurrants, a dwarf peach, boysenberries, a thornless blackberry, two cranberries and two gooseberries.

### *Need a pollinator?*

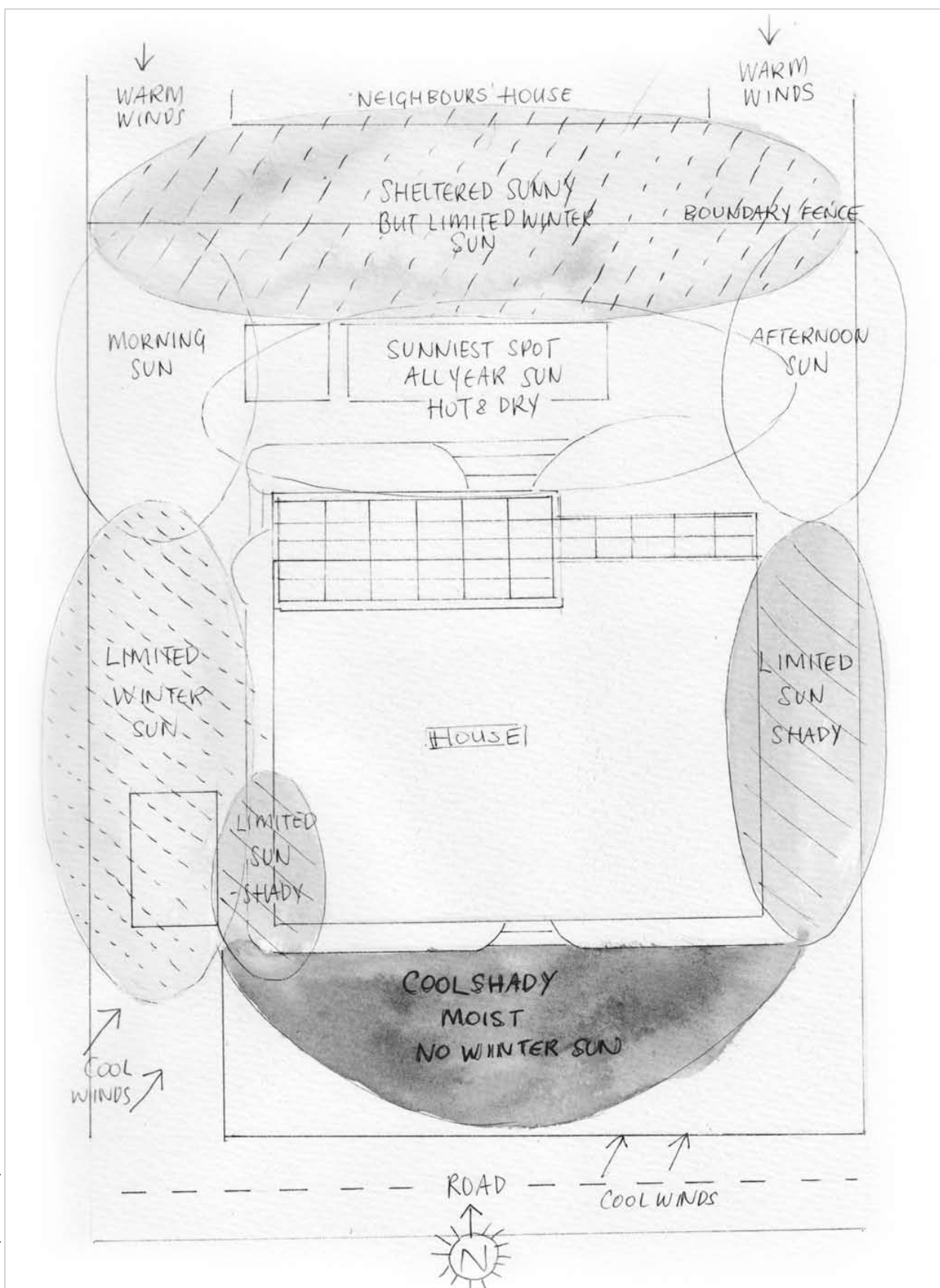
Some plants need a 'pollinator' nearby (i.e. another plant of the same type, flowering at the same time) to make sure the blossoms are cross-pollinated and form fruits.

A pollinator can be another tree on your own property or a neighbour's, or it can be a branch of another compatible variety grafted onto your tree.

Check out whether the fruit trees you want to grow need a pollinator.



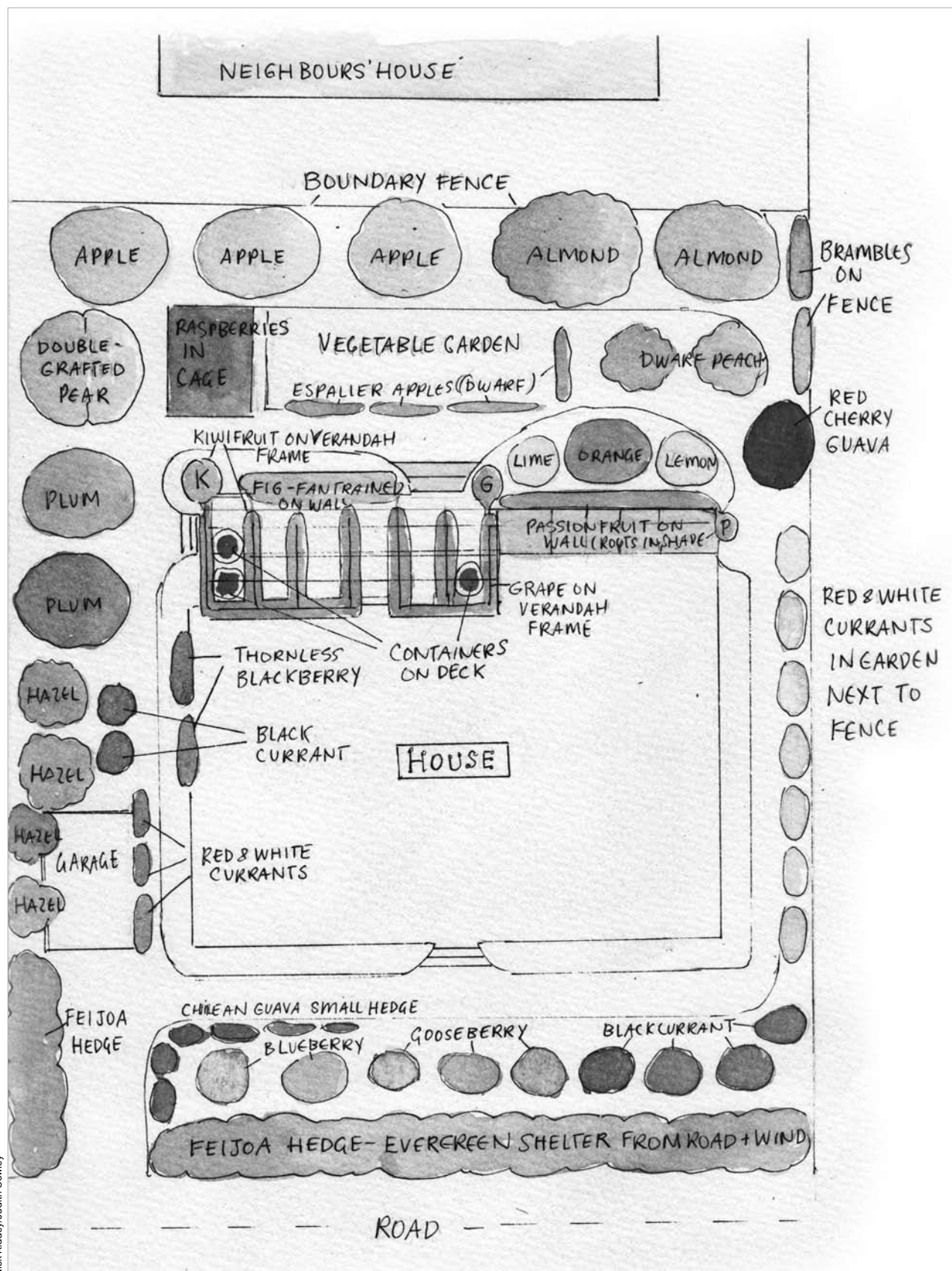
## Microclimates in a typical suburban property



Nick Kiddey/Judith Cowley



# What you could grow in those pockets



Nick Kiddey/Judith Cowley

## Using space well

### Make the most of your space

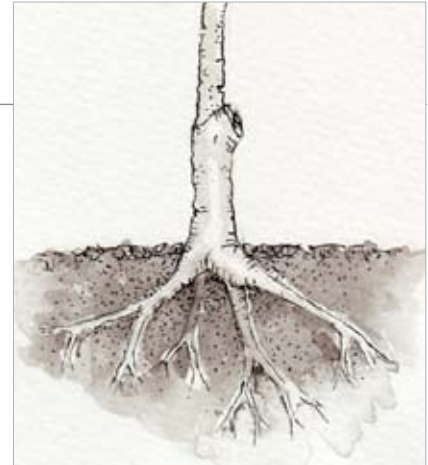
You might think you don't have enough suitable space to grow many fruit trees, but there are ways to get around that.

#### 1. *The right rootstock*

A tree you buy from a nursery usually consists of a 'graft' (a living piece of the variety you want) that has been fused to a 'rootstock' (a living stump). It is the rootstock that controls factors such as how big the tree gets and what soil conditions it can handle. When you buy your tree, tell the nursery the conditions the tree will grow in, so they can advise you on the right rootstock (there's more about rootstocks in the section 'Part 2 – Other Useful Info').

Trees grown on dwarf rootstock can be handy for fitting more types of fruit into a small property, as they only grow to two or three metres in height e.g. dwarf peaches, nectarines, apples, almonds and citrus. BUT:

- they are more delicate, and only do well if they're planted in fertile, well-drained soil
- they have brittle, shallow roots, so they need good shelter, irrigation and mulching, plus staking so they don't blow over.



Adapted from How to Make a Forest Garden

**Rootstock and graft union**

#### 2. *Vertical stacking*

You can fit heaps more plants into a small property if you use 'vertical space' well.

For example, instead of having all your bigger trees in one area, your fruit bushes in another, and your herbs and groundcover fruits somewhere else, you can have a big tree with suitable shrubs planted around it, and herbs and groundcovers in between them all (see the illustration below). This is also known as 'forest gardening' – for more information see:

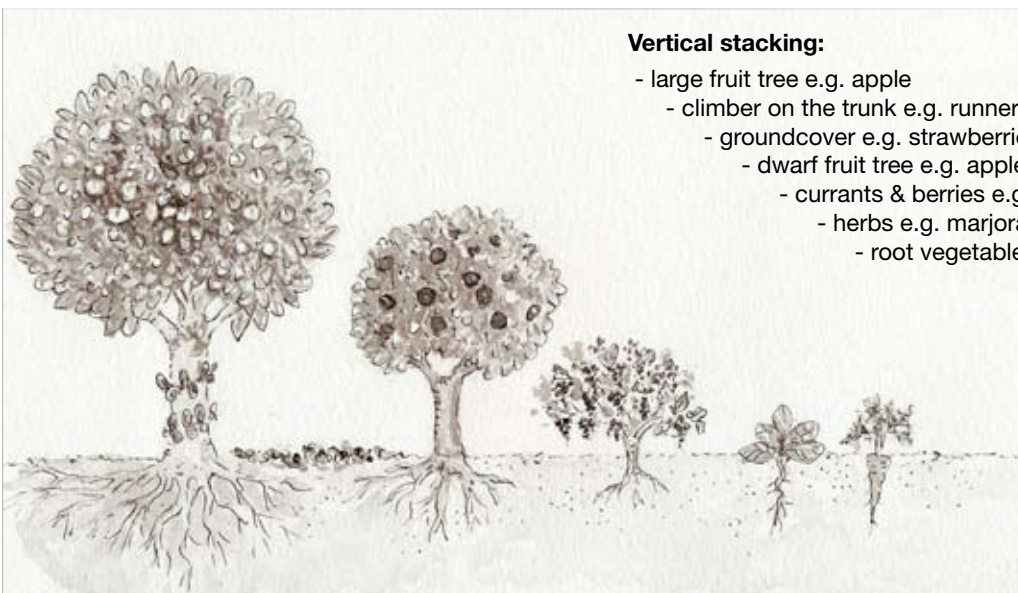
[www.edibleforestgardens.com/about\\_gardening](http://www.edibleforestgardens.com/about_gardening)

[www.agroforestry.co.uk/forngndg](http://www.agroforestry.co.uk/forngndg)

[www.spiralseed.co.uk](http://www.spiralseed.co.uk)

#### **Vertical stacking:**

- large fruit tree e.g. apple
- climber on the trunk e.g. runner bean
- groundcover e.g. strawberries, nasturtiums
- dwarf fruit tree e.g. apple, peach
- currants & berries e.g. blackcurrants
- herbs e.g. marjoram, comfrey
- root vegetables e.g. beetroot



Adapted from Graham Burnett [www.spiralseed.co.uk](http://www.spiralseed.co.uk)

## Using space well

### 3. Multiple grafts

To increase the number of varieties you can fit onto your section, you can buy trees with other related varieties grafted onto them – they're called 'family trees', or 'double grafts' or 'triples'.

Also, to make sure you have a pollinator for your blossoms, you can graft just one branch of the pollinator variety onto your tree.

If you want to add another variety to an established tree, the instructions on these websites are really clear:

[www.sces.org.nz/pmwiki.php/Content/Grafting](http://www.sces.org.nz/pmwiki.php/Content/Grafting)

[www.sces.org.nz/pmwiki.php/Content/TakingCuttingsFromOldVarieties](http://www.sces.org.nz/pmwiki.php/Content/TakingCuttingsFromOldVarieties)

### 4. Space-saving shapes

You can train trees against a fence or wall, or use them to divide the property into different areas. Berries and vines are also happy growing amongst the shrub border of the garden, or trained over arches and pergolas.

The simplest support structure is galvanised fencing wire attached along a wall, or between two strong posts or stakes.

See the section 'Part 2 – Training' for how to create the shapes below (Cordon, Espalier, Fan).

## An Atawhai gardener

We're growing all our fruit trees as espalier.

We've only got a small backyard, but by using espalier and double grafts, we can grow four varieties of apples, two pears, a greengage and a plum, and we still have room for a dwarf cherry and a mature blackboy peach.

We can easily drape birdnetting over the structures so the birds don't peck holes in the fruit when the weather's dry.

And because the lush tips get pruned off, we don't have problems with insects infesting the growing tips.

### 5. Containers

If your only growing space is on a balcony, you can grow fruiting plants in containers. Other advantages of using containers:

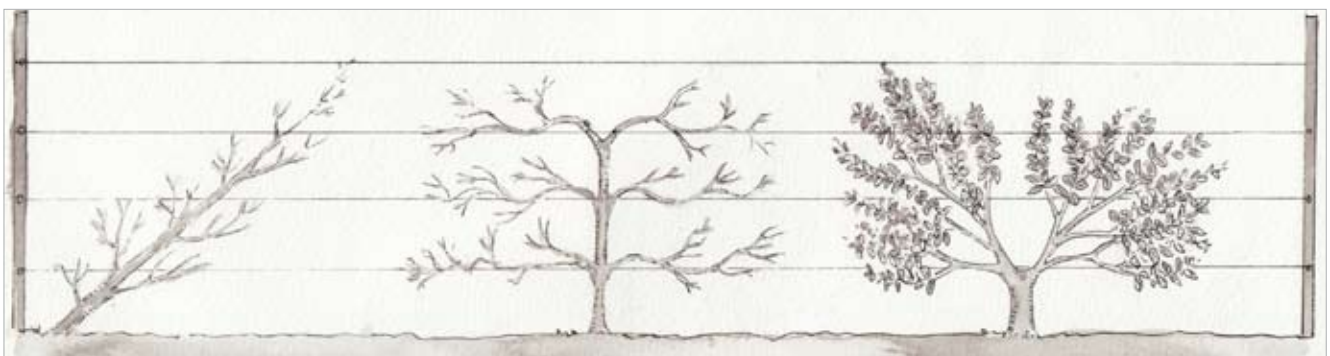
- In a cold area, you can grow citrus and other subtropicals in pots and move them under cover during winter.
- They're decorative e.g. for entrances, decks, paved areas.
- You can take them if you shift house!

BUT containers are less forgiving than growing plants in the ground, so it's easier to run into problems. For more information, see [www.edible.co.nz/growing.php#container](http://www.edible.co.nz/growing.php#container)

Cordon

Espalier

Fan



Adapted from *How to Make a Forest Garden*



## Getting started

### Easy plants to start with

Start with fruiting plants that aren't too fussy, e.g. feijoa, lemon, mandarin, orange, plum, persimmon, hazelnut, an apple that is resistant to black spot, and various berries.

Varieties of each fruit that perform well in organic home gardens in this region are listed in the section 'Part 3 – Essential Plant Info', and are also summarised in a chart in the section 'Part 4 – Other Useful Info' and on our website. The stonefruit varieties (except for plums) are not totally disease resistant – they often get curly leaf and brown rot in this region, even when they're called 'resistant'.

### Plan well ahead

If you select varieties that are less common, order them at the nursery in summer, so they arrive for planting in winter – nurseries often sell out before then.

Planting a fruit tree in winter, rather than any other time of year, helps it get well established because:

- the tree's energy is in its root zone then, rather than in leaf growth
- there's plenty of moisture in the ground, so the tree doesn't get stressed.

### Main points to remember for success

- Fruiting plants need sun.
- Protect them from strong winds.
- Dig drains if the soil gets waterlogged.
- Add organic matter to improve the soil.
- Water the plants regularly until they're established.
- Choose varieties and/or rootstocks that suit your soil type (e.g. clay, sandy, silty).
- Choose varieties that don't flower when you have frosts.
- Plant a pollinator if required.
- Protect near-ripe fruit from birds.

