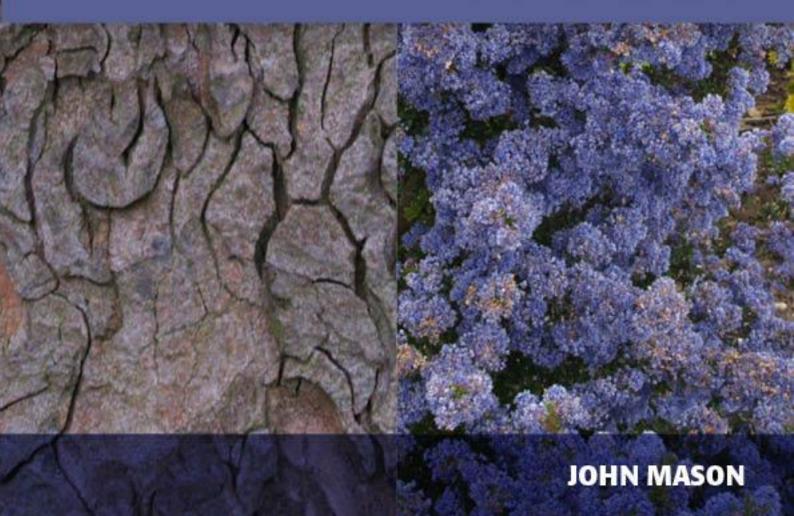


TRES & SHRUBS for Small Gardens



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Dais
Diospyros
Eleocarpus
Erythrina
Eucalyptus
Eugenia
Ficus
Hakea
Hymenosporum
Laburnum
Lagerstroemia
Magnolia
Malus
Metrosideros
Michelia
Olea
Pittosporum
Plumeria
Prunus
Plum
Apricot
Peach & nectarine
Cherry
Psidium
Pyrus
Fruiting pear
Nashi or asian pear
Rhodamnia
Sambucus
Schotia
Sophora
Syringia
Syzygium
Tabebuia
Tecoma (or tecomaria)
Xanthostemon
CHAPTER 5 : SHRUBS
Abelia
Aloysia (syn. Lippia)
Andromeda (note: sometimes incorrectly confused with p
Artemisia

79	Fuchsia
79	Gardenia
80	Genista
82	Grevillea
84	Hebe
85	Heliotropium
85	Hydrangea
86	Hypericum
87	Kalmia
88	Kolkwitzia
88	Kerria
89	Lavandula
89	Leptospermum
90	Lonicera
90	Luculia
91	Mahonia
92	Melaleuca
92	Murraya
94	Nandina
95	Ocimum
95	Pelargonium
96	Philadelphus
96	Pieris
97	Pimelea
97	Polygala
98	Pultenaea
98	Pyracantha
99	Rhododendron
99	Rosa
100	Salvia
101	Senecio
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PREFACE

This book is particularly relevant to small gardens, or confined spaces within larger gardens.

Despite this focus, it still provides a foundation for learning to identify and grow trees and shrubs in any situation.

A small garden often poses a greater challenge to the gardener than a larger one. Faced with limited space, it can be difficult to know what to plant and how to make your plants grow well.

Good advice and careful planning is essential. The wrong tree or shrub can result in broken drains or damaged foundations. A tree that grows too large can block the sunlight, compromise views and irritate neighbours. A plant that thrives in a more open space might require quite different treatment in a confined setting. Landscaping decisions can make the difference between a cramped, hard to maintain garden, and one that is welcoming in every season.

This book is an essential guide for any gardener who wants to make the most out of a courtyard, verandah garden or any other confined space.

John Mason FIOH, FAIH, FPLA

If you have a favourite tree or shrub, but don't have the space to grow it; all hope is not lost.

There are often ways of treating plants to accomadate the space restrictions you confront. You might grow it in a tub; or just prune it to restrict its size. If the roots pose a problem, you might plant it in a confined position; where the root system is restricted from getting too large.

Making Big Plants Fit in Small Places

Trees that might ordinarily be too big for a small garden may still be able to be grown, using a technique to restrict the plant's size. The most obvious way is to grow the tree in a tub; or to restrict the spread of roots or foliage by pruning. Many larger plants can be readily kept much smaller in this manner, for example as hedges, or as topiary specimens, or even as bonsai.

ROOT CONTROL

If you confine roots to a particular soil volume, they can be kept from invading unwanted areas. This technique will also tend to reduce the overall size of the tree. Root control may be affected by any of the following methods:

- Build a concrete wall under the ground
- Woven fabrics that restrict movement of roots (eg. root control bags).
- Thin plastic or metal barriers placed vertically down into the ground to prevent roots spreading outwards from the plant into areas where the they might be a problem (e.g. pipes, water features, paved areas). If the barrier reaches deep enough (ideally at least 50 − 60cm or more) then any roots that do go beneath the barrier are usually deep enough not to cause problems for paved areas.

WEEPING TREES

Although there are many naturally weeping plants, some weeping trees are produced by grafting. Generally a tall upright growing variety forms the rootstock, and a spreading variety is grafted on top, at a desired height. This produces a straight upright trunk supporting outstretched and drooping branches on top. The height of weeping trees can be controlled (hence many have potential for smaller gardens).



Be aware that some weeping trees can still spread a great deal, and become quite large. Weeping elms for instance might be inappropriate for a courtyard, but a weeping Acer palmatum 'Dissectum' may be appropriate.

Examples of plants commonly grafted as weepers include:

Acer palmatum cultivars
Cherries
Flowering Peach cultivars
Silver Birch
Roses
Conifer varieties
Prostrate Grevilleas (e.g. G. 'Royal Mantle', G. 'Gaudi
Chaudi', G. thelmaniana).

STANDARDS

Standards are often developed by grafting an upright or bushy styled plant onto a more erect cultivar of the same plant genus.

Alternatively a normal plant can sometimes be trained, through careful pruning to achieve the same standard habit. The desired plant is allowed to grow as a single stem until the height is achieved where you want branching (the ball shape) to commence. At this point the plant is pruned. Pruning is continuous from this point onwards in order to achieve a bushy well-branched specimen. Any branches that develop below the desired point are removed immediately. The height of the standard and the size of the ball are purely subjective. In other words, you can select any dimension you desire.

Many small shrubs and trees are suitable for standards. The bushier the natural habit of the plant tends to be, the better suited to standard formation the plant generally is.

ESPALIERS

The spread of larger plants can often be contained by growing them as espaliers. This is the process of growing a plant up a wall or trellis, or similar structure, with the plant trained and pruned against the flat structure minimising its spread outwards. This can be a great way of utilising what might otherwise be a bare wall, and allow you to grow plants that might otherwise be too big. Trellising or wire stays might be used against the wall to provide anchorage points to train branches to.

DWARFING ROOTSTOCKS

Some trees that generally grow large can be kept smaller by grafting onto rootstocks that keep them smaller (eg. they may be less vigorous roots)

For Example

	NORMAL HEIGHT
Apple	5 metres
Citrus	5 metres

L AREAS

BIG EFFECTS IN SMALL SPACES

Creating an attractive garden in a small area, that won't quickly take over most of the available space, can be a real challenge. Here are a few ideas:

- Choose your plants carefully: Use plants with fine textured foliage, rather than large leaves. This helps make the garden appear larger. Avoid the use of vigorous or invasive plants. They can quickly take over closing in the garden, and creating maintenance problems. Use dwarf varieties of plants (see the following section on dwarf plants).
- A winding path, rather than one that goes straight from Point A to Point B makes a garden seem larger.
- Create the optical illusion of distance by having a path with the furthest point from your house or entertainment area slightly narrower than the closer parts of the path.
- The feeling of space can be enhanced by having your garden merge into the house. Glassed entry areas, and the use of indoor plants can help achieve this.
- Small to medium shade trees (deciduous) can be used to provide summer shade and winter light. It is important to choose species that will not have too invasive a root system, or will grow too big for the size of the garden.
- Do not over plant your garden. Remember that plants can grow very quickly once established, and you may find you have no space left to move in yourself.
- Avoid active colours (eg. red, yellow and orange) as these make small spaces seem smaller. Use colours such as blues, whites, greens and purples to make small spaces seem larger.
- For small gardens that receive limited sunlight use shadeloving plants, such as ferns, begonias, fuchsias, impatiens and balsam. Camellias, dwarf rhododendrons and azaleas make excellent tub plants for cooler sites, while palms, dracaenas and crotons, are good for warmer areas.
- Espaliered trees or shrubs require very little ground space, and are good for small gardens. They can be used to cover walls helping to merge them into the garden, and reducing glare and heat build up. Espaliered fruit trees can be both an attractive addition to the garden as well as providing fruit.
- Dwarf trees can create the image of a much larger garden. There is a huge range of dwarf conifers that would be suitable. Dwarf fruits, such as some of the citrus or dwarf apples, such as the 'Ballerina' range, are not only attractive, but make excellent plants for containers or small beds, as well as providing excellent tasting fruit.
- For long, narrow gardens, such as entry areas, ground cover and low growing plants can be grown to spill over paved walkways to soften the long straight lines of the pathway, to reduce the visual effect of distance. Statues or other features can also be placed at either end of the garden to create a focal point which also reduces the visual effect of distance.
- Tall, narrow, bushy plants can be used to create 'walls' around a garden instead of solid fences or walls. This can help improve ventilation, and can be a lot cheaper than solid fences.

- Design your garden so that it appears that any plants, or attractive features in a neighbours garden appear to be part of yours.
- Painted images and scenes (ie. Tromp l'0liel) on walls around the garden can create a feeling of a much larger space. Plants can be positioned to frame these scenes, and help merge them into the living garden so that they appear as one.
- A similar approach is to position a large mirror on a wall in a well lit, but protected position so that one gets back reflected images creating the feel of a much larger garden. The difference between the mirror and painted image is that the reflected images change as you change position.
- Make as much use of the available space as possible, for example, build planting boxes below windows looking out onto the garden, create a raised wall garden or have lots of hanging baskets.
- Place small statues or similar objects at the far end of the garden to give the appearance of distance.

Small or Dwarf Plants To Use

There are countless numbers of smaller versions of normally larger plants that can be used in a small garden. The ones described below are just a few examples.

Fortunella japonica (Cumquat) is a glossy, evergreen citrus, with small, attractive, edible fruit. If you want a citrus but have limited space, this makes an excellent plant for a small bed or large container.

There are a huge variety of miniature roses available, in a stunning array of colours. These mostly prefer full sun to plight shade in a protected position. Like the larger rose types they have varying resistance (depending on variety) to the common rose pests and diseases. They make excellent container plants.

Syzygium australe "Bush Christmas' is a compact form of one of the native Lilly Pillys. It reaches 2- 3m tall, and about 1.5m wide. It can be readily pruned to keep it more compact, or into a hedge, or topiaried. The new growth is an attractive orange, and it has attractive, edible red berries which can be used for making jam. It makes an excellent container plant. There are several other attractive compact Lilli Pilly varieties that have become available, such as 'Lillyput'.

Hebe 'Rosie' is a compact, rounded, plant with bright, evergreen foliage, and masses of small pink to white flowers in the warmer months. It grows to about 30cm tall and 60cm wide. It enjoys full sun to partial shade, and is ideal for containers, window boxes, or massed displays.

Dwarf Deciduous Feature Trees For A Small Garden

The following are a short selection of deciduous trees that could be used as feature in a small garden. Being deciduous they provide some shade in the warmer months, and lose their leaves allowing better light penetration into the garden in the cooler months.



Problems With Containers

Drying out

It is very important to minimise the likelihood of the roots drying out. If the area is exposed to wind or excessive heat, such as on a balcony or rooftop garden, or in a courtyard surrounded by solid walls, then the growing media can quickly dry out. There are a few things you can do to reduce the likelihood of this occurring:

- Grow in larger containers eg. big pots or large planter boxes with as much depth as possible of growing media (at least 50cm deep).
- Provide a constant or regular supply of water by either using a capillary watering system (eg. water well pots), a drip irrigation system, or a hydroponic system. Watering of your plants will be much easier if there is access nearby to a tap, or a water pipe that can be accessed in some way.
- Mulch plants heavily.
- Use drought resistant plants.
- Build a wind break for exposed gardens, such as a balcony, using materials such as a wall of shade cloth, or trellis covered with creepers.
- Use a good quality potting soil. Soils which conform to Australian soil standards will usually have less problems with drying out. These are sometimes more expensive than other potting mixes, but generally well worth the extra expense.
- Add things to the growing media to improve their ability to hold moisture (eg. peat moss, vermiculite, perlite, wetting agents or water absorbing crystals.
- Avoid the use of containers made from porous materials such as raw wood, or unglazed terracotta. These can absorb a lot of water from growing media.



- What type of windows or doors lead or look out onto the balcony? Remember the view from inside. It is important to avoid placing objects, such as outdoor furniture, barbeques, or plant containers where they will create obstructions or reduce access.
- Surfaces might be dressed up by paving, or by painting to create different effects.
- Getting more use of available space. This can be achieved by using window boxes hanging on the outside of the balustrade, or hanging baskets from the eaves, or hanging from a pergola above the balcony...etc.
- If space allows, you can consider a BBQ, outdoor furniture, feeders or baths to attract birds, or small statuary.

The Balcony Environment

Often balconies are exposed places which can be inhospitable to many types of plants. Wind in particular may be a problem, and depending on the aspect, a balcony may be either a sun trap, becoming too hot at times; or continually in the shade, starved of light and warmth particularly in winter. Balconies may be protected by large trees growing nearby, or shaded by adjacent tall buildings. Large structures may also create wind tunnels effects, complicating the task of successful gardening.

There are plenty of hardy plants, however, which will grow well in even the harshest conditions.

Plants For Balconies

With the right attention, you can grow most things on a verandah. Select plants to suit the space available. Large trees and shrubs that require frequent pruning may be inappropriate. What will you do with the prunings?

If you plan on spending a lot of time gardening in a small area, you might consider lots of container plants: miniature fruit trees, cut flowers producing shrubs, topiaries, or even an espalier can even be grown in a tub.

Some plants can have a high maintenance requirement if kept on a balcony. In particular avoid the use of plants that have a tendency to drop leaves, twigs, or fleshy fruits and berries. Decomposing plant parts can be slippery, and are a chore to pick up on a regular basis. Rampant growers should also be avoided as they soon take over what space you have, often choking out other plants.



COURTYARD GARDENS

A court or courtyard garden is a garden space that is enclosed by walls or buildings on three or four sides, or a confined yard that is generally surrounded by houses, and with an opening off a street. Courtyards can be as small as a few square metres, such as the space between a house and garage, or between a house and a side fence. They can also be quite large, such as those found surrounded by large city buildings, or surrounded by classrooms and walkways in a school. Courtyard gardens are common in inner city areas, where homes are generally packed close together, and with limited garden space, such as terrace houses.

Courtyards are usually open to the sky, but can also be partially covered, such as by a pergola, or completely covered by transparent coverings, such as glass, or polycarbonate. Some houses are designed to have a courtyard enclosed or surrounded by the house, enabling it to be seen from different angles, and so that it appears to be part of the house. Courtyards are an ideal use of a small space that may not be big enough for use as a work or living area – simply turn the area into a decorative feature.

Larger courtyards may have areas of lawn, but smaller ones are generally unsuitable for lawns, with paving, and mulched areas being more common.

Characteristics Of Courtyard Gardens

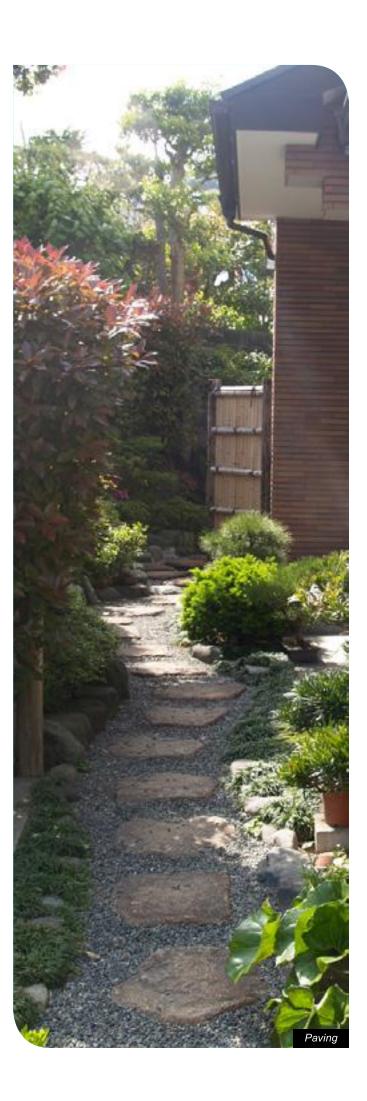
The protected nature of courtyards, provided by the surrounding fences or walls has both advantages and disadvantages. Courtyards provide protection from climate extremes, particularly wind, from excessive noise or bad views. They can also be very private.

Protection from strong winds may lead to poor ventilation – this can be a problem for some plants, particularly those that are subject to attack by fungal diseases. Large areas of paved surfaces and concrete or brick walls may lead to heat build up in the garden. This can be an advantage in cooler months, but can be a real problem in warmer times. Reflected heat and glare can also be a problem damaging tender plants, or making the area too glary to use on bright days. Poor light can also be a problem if the courtyard is surrounded on one or more sides by tall buildings, or overhanging trees that block out the light for part, or even all of the day.

Water & Drainage

The protected nature of courtyards, especially if they are partially or completely covered, means that plants in the garden may not get sufficient natural rainfall, particularly those plants that are close to walls or fences. Supplementary watering is normally essential. For small courtyards hand watering with a hose or watering can may be sufficient, but for those with larger courtyards, and those who don't want to spend a lot of time watering, then installing a watering system is the answer.

Water can also be made a feature of courtyard gardens, through the use of small ponds, birdbaths, or even small fountains. The water evaporating from these will help create a humid environment that will benefit some types of plants (e.g. ferns).



SHADE

Shade is common in small gardens, and it has both benefits and disadvantages for plants and people. Even the family pets need and appreciate a little shade in the hot Australian summer. With the prevalence of skin cancer, shade is particularly important, not only to keep us cool in hot weather, but also to provide protection from this serious disease. Many small gardens will be naturally shaded due to the presence of surrounding structures such as fences or buildings.

Shade protects plants from both extreme temperature and excessive light. Some plants love shade, however many don't. Careful plant selection is important to make the most of your shady areas.

Creating Shade

You may desire to create more shaded areas. This can be readily done by such means as:

- Installing a shadehouse or covering existing structures with some shade material.
- Temporary covers made from canvas, shadecloth or similar materials can be strung up on poles or between established buildings and/or trees to create shade during warmer months, and then removed during cooler times.
- Building a pergola. These can be made shadier by training a plant (eg. laburnum) over the pergola. If you use deciduous climbers you can get the benefits of summer shade, and increased light during winter when leaves have fallen.
- Growing suitable shade trees. These should not have invasive root systems that might damage drains, footpaths, foundations, etc. Although deciduous types provide summer shade and winter light, cleaning up the fallen leaves can be a real chore.



- What are the maintenance requirements? Do the plants require pruning, staking, regular watering and feeding? Are they deciduous resulting in lots of leaves that may need clearing?
- Are the plants safe? Some plants cause allergies, some have thorns or spines, others drop branches.
- How invasive are particular plants? Do they have invasive roots, do they sucker, are they rampant creepers, do they self seed freely? Such plants can quickly take over a small garden.
- How prone are the particular plants to pest & diseases?
- How costly are the plants, and are they readily available to buy? Are there cheaper alternatives?

Trees with Less Damaging Root Systems

The following trees have fibrous root systems which are not vigorous growing and are therefore unlikely to cause problems:

Acer palmatum cultivars Evodellia muelleri Hakea laurina Hymenosporum flavum Pittosporum eugenioides cultivars

Trees with Damaging Root Systems

The following plants have been reported as problematic for pipes, drains and foundations:

These plants should be planted well clear of any water features, paved areas, or buildings.

Apple Gum Angophora costata Betula spp. **Birches**

Brachychiton acerifolium Illawara Flame Tree

Brassaia actinophylla Umbrella tree (tropical areas)

Casuarina sp. Sheoaks Celtis occidentalis Chinese Elm

Citharexylum fruticosum Fiddle Wood Tree (tropical

areas)

Delonix regia Poinciana (tropical areas)

Erythrina sp. **Coral Tree** Eucalyptus sp. Gums Figs Ficus spp. Grevillea robusta Silky Oak

Hibiscus sinensis Hibiscus cultivars

Jacaranda mimosifolia Jacaranda Lagerstroemia sp. Crepe Myrtle Liquidamber Liquidamber sp. Lothostemon confertus **Brush Box** Melaleuca sp. **Paperbarks**

Melia azederach White Cedar (tropical areas)

Pinus sp. Pines Platanus acerifolia Plane Tree Populus sp. **Poplars** Salix sp. Willow

Spathodea campanulata African Tulip Tree Tipuana sp. Tipuana (tropical areas)



UR PLANTS

leaves. Don't use plants contaminated with insects or other pests. Seeds and bulbs should be fresh, free of abnormal markings or any rots.



Maintain Good Hygiene

Remove any diseased fruit, flowers, leaves, or other plant parts, and burn them (do not compost them or let them lay on the ground!). Wash soil off paths, pavers, concrete areas – soil tracked from one area to another may spread disease. Sit plants in containers on stones or paving, or on top of a couple of bricks (not directly on top of soil). This minimises movement of pest & disease organisms from the soil up into the pot. Keep hoses, particularly the nozzles stored off the ground, ideally on a reel or rack to minimise contact with the ground where they may come in contact with disease organisms.

Maintain The Nutrition & Watering Needs of The Plant

Do not over water or underwater...both are as bad as each other! Over watering (waterlogging) is indicated by yellowing of the lower leaves, sometimes wilting and eventually dropping of the lower leaves. Under watering is indicated by browning of the tips and foliage generally, and at times by severe wilting and leaf drop. Lack of nutrients is indicated by a slow rate of growth, and in severe cases, by discolouration patterns on leaves.

In small gardens you need to keep the deepest roots moist; otherwise you will encourage roots to come to the surface in search of water. Do this by giving the garden a good soaking less often, rather than frequent light irrigations. A drip irrigation system is ideal for this purpose.

Inspect Plants Regularly For Evidence of Pest & Disease Problems

Look at the growing tips first. The young growth will indicate general vigor (or lack of it). The soft tips are also the area of the plant most commonly attacked. Look for die-back, discolouration of leaves or wood, distortion of growth, rots, eaten or broken tissue. If pest or disease problems are noticed then treat them as soon as possible to prevent further decline in the health of the plant/s, and to minimise the likelihood of the problem spreading.

