

# LESSON 1 PLANT SELECTION

Plant selection is an important part of creating a beautiful and functional garden. With careful selection and well thought out planting schemes you can minimise maintenance, minimise disease and prevent over-planting. Over-planting is one of the most easily made mistakes in a garden. This is especially so for large trees that could end up being very costly to remove. Tangled trees (through over-planting) are never attractive, and also create a hostile environment for many plant species that may have been planted beneath them, when the trees were still small.



*Different plants are available at different times – choose when to plant accordingly.*

is largely determined by the suitability of the plant to the situation, the conditions that they are to grow in, the planting techniques that you use at the outset and your garden maintenance capabilities (i.e. the time you can input and expertise you have).



*Araucaria heterophylla lives perhaps hundreds of years, and withstands coastal conditions; but is a very tall tree.*

With careful plant selection you can create a garden that will still be beautiful decades from now. A well-selected plant is more likely to survive establishment and should also be more easily maintained. As long as you remember that the success of a garden

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### Suggested Tasks

Walk around your local area and look at the gardens, especially the trees, see if you find examples of trees that have been over-planted (too many on the block, planted too close together or inappropriately large for the garden). How do you think this may have adversely affected the gardens in general? E.g. look at the grass, any struggling or leggy looking shrubs or generally sick looking plants. This will give you quite an insight into how inappropriate planting doesn't work for the plant or the aesthetics of the garden.

You can use the following points to help you when considering what plants you should grow:

- Pre-planning considerations - including the site characteristics i.e. slope, soil etc., as well as the location of services and buildings, local by-laws and personal preferences.
- Use - what particular task do you want the plant to fulfil i.e. shade, appearance, windbreak etc.?
- Climatic considerations - which plants are best suited to the particular climatic conditions in which the landscape is situated? This includes the frequency, strength and duration of rainfall, winds and frosts as well as temperature and humidity levels.
- Growth characteristics - how big does it grow and how quickly, does it have invasive roots that are likely to block drains or lift footpaths, buildings etc., is it deciduous so that it provides shade in summer and allows light through in winter, could the plant become invasive i.e. a weed?
- Longevity - how long is the plant likely to live?
- Safety - do the plants have thorns or prickles that may cause injuries, can it cause an allergic reaction, are parts of it poisonous, is it likely to drop branches, is it likely to burn easily (i.e. Eucalypts)?
- Maintenance - does it require pruning, staking and regular feeding, does it drop leaves or fruit that may need to be swept or raked etc.?

- Hardiness - is it prone to attack from pests and diseases, is it readily affected by pollutants etc.?
- Appearance - things such as flower and leaf shape, colour and texture, or the overall shape of the plant itself.
- Availability and cost - are the plants you desire readily available, what do they cost, are substitutes readily available?

Other things you should consider are related to the use of the plant i.e. the overall look are you trying to achieve for your garden and what function the plants are required to perform.



*Lavenders are hardy and fast growing, but rarely last more than a decade.*

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### Suggested Tasks

1. Consider the effects of environment on plant growth - do some extra research on the internet on the subject - take some notes:
  - a. What sort of problems could occur if you planted for example a tropical plant in a cool climate?
  - b. What would happen to a frost intolerant plant in a frosty area?
  - c. How would a cool climate plant cope in the tropics?
2. Make a list of all the things you would consider important when choosing plants.
3. Make a list of pre-planning considerations that would need to be collected if you were designing a new garden and planting new plants.

Are you going to use the plant:

- As a windbreak?
- As a visual barrier or screen?
- To reduce noise i.e. on the edge of freeways?
- As a physical barrier i.e. thorny plants used as a hedge or fence.
- To provide shade.
- To provide shelter, nesting areas and food for animals.
- To provide food i.e. fruit, honey.
- To stabilise the soil i.e. prevent erosion, landslips etc.
- To change the hydrological characteristics of the soil i.e. help drain waterlogged soils, lower the water table etc.
- A combination of two or more of these reasons.



*Euphorbias are mostly hardy and fast growing, but the sap is a skin irritant and toxic if swallowed.*

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### Suggested Task

Make a list of plants that would be suited to each of the 10 uses described on this page.

You can make the list as long as you like or find just 5 or ten for each use.

## ADDITIONAL READING >>>

You will need to do a bit of extra research to do this task – it will certainly extend your plant knowledge.

Just do a google search for each of the uses e.g. plants used for honey production; plants used for windbreaks etc.

## PLANTING STRATEGIES

There are many reasons why plants do not grow well in a particular garden or in a particular place. Most of these are caused by a combination of local climate and soil conditions. Some common problems include:

- Alkaline soils - these are soils with a pH greater than 7 (note though that most plants will grow slightly outside of their preferred range, so it is not always necessary to change pH if it is within a reasonable range. For example most acid loving plants will still grow at pH 6 even though they may optimally prefer pH5).
- Waterlogged soils - where drainage is poor, generally due to the site being in a low lying area, or because of poorly structured soils, such as heavy clays.



*Selecting succulents and cacti may be appropriate for a dry slope.*

- Salinity - in some parts of the world, this is a problem not just in agricultural areas, but increasingly in urban fringe areas. The overuse of fertilisers combined with drip irrigation can cause localised salinity problems around the base of plants (for example). If you are in prolonged drought or extended dry conditions - take care to use organic fertilisers rather than fast release ones and if possible deep water the soil occasionally to flush down salts



*Choose tall plants at the back, medium in the middle and lower in the front.*