

## Growing food at home series

# What to grow in - in-ground vs containers

### Pack B Notes 1

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These notes aim to assist you in choosing what to grow your home produce directly in the soil in your yard or in pots or containers. Success can be achieved through either means. Each person's situation is unique and there are numerous factors to consider when deciding what is the best way for you. There are convincing cases for both options, and below are listed pros and cons of growing in the ground verses growing in different types of pots and containers. Ultimately the final decision will be based on your circumstances. It may well be a combination of both- it is for me. By being informed we hope you will save resources, be successfully growing more produce promptly, and have a food garden that is a pleasure to be in.

### Growing food plants in pots and containers

There are numerous reasons for growing this way, and as the pictures show it can be very successful.

#### Pros include:

- Save or use space
- Temporary garden. If renting you can take with you
- Economic on sloping sites where garden beds would require retainer walls
- Portability- can move out of wind or cold/heat
- Raised containers are warmer in winter- speeds seed germination
- Large variety of food plants can be grown in pots and containers
- Restrict growth of invasive trees out into garden
- Neighbouring plant roots prevented from invading food production soils
- Fertilisation loss is reduced
- Pests may be easier to control
- Containers can be an attractive feature
- Plastic pots are light, have a good size range and are easily reused
- Easy to buy acid pH potting mix than lowering pH for acid loving plants such as berries and rhubarb



### Cons include:

- Pots can be heavy
- Even if the pot is light, large full pots can be heavy to shift
- Wood needs to be sealed, eventually it rots and replacing is necessary
- Drainage holes can be inadequate. It's difficult to add more in ceramic pots
- Lots are required to grow a large volume of food which increasing layout cost and management
- Potting mix is extra cost. Quality is variable; may be costly to find the best one
- Watering in summer can be hard to keep up as pots can over heat
- Slugs may live in base of containers and pots

Refer to **Pack E** for information on growing in pots and making potting mix.



### Raised garden beds

These are usually larger than pots, made as fixed features, from variable materials. They can be built to a comfortable working height which is one of their advantages. Plant roots can grow down to the natural soil which is helpful for larger plants to obtain nutrients, and help with drainage.

### Pros include:

- Can be made to suitable heights for comfortable use
- Variety of materials can be used. Be care that its food grade material
- Use space- can be built into spaces, including corners, can be large
- Mixed vegetables can grow together
- Temporary garden. If renting you can take with you if not bricked in
- Raised containers are warmer in winter
- Deep rooted plants can grow in
- Tool storage can be built onto the edges
- Can put deep stakes in, and build stable support frames in easily



1 Brick border is a good seat and a fun stepping stone for children

### Cons include:

- Location of good soil needs to match plants sunlight needs
- Initial outlay for material can be high, especially for larger beds
- Installation of larger beds requires some building skills and tools and is physically challenging
- Not as easily taken apart if needing to shift in comparison to shifting a pot
- Watering systems can waste a lot of water through evaporation and run off
- Nutrients can be lost into soil below the root zone
- Roots from neighbouring trees can come into beds and rob nutrients and water

2 Frames can be easily built onto wooden beds for climbing plants and to attach shade cloth to



raspberries on trellis



climbing peas



shade cloth secured on top

### Growing food plants direct in the soil

If your soil is good the simplest, cheapest and fastest way to start is to grow in the ground.

#### Pros include:

- Easy to set up
- Low cost set up
- Utilise nutrients in the existing soil
- Soils are easily altered to soil to the needs to particular crops
- Easy to build comprehensive canopies, for high productivity
- Can grow canes such as raspberry and blackberry
- Good use of space- large areas can be easily prepared, with narrow paths
- Easy to shift beds around
- Adaptable and can grow annuals with perennials
- Easy to work in the beds



#### Cons include:

- Location of good soil needs to match plants sunlight needs
- Watering systems can waste a lot of water through evaporation and run off
- Nutrients can be lost into soil below the root zone
- Root and weed invasion from neighbouring plants outside of bed

Refer to **Pack C** for detailed information on soils.



## Wicking beds

Wicking beds are a self-contained garden bed with its own water reservoir underneath. Water moves (wicks) up through the soil and keeps it moist. They can be located in the ground but are often raised beds because of the height convenience, and are commonly seen as self-watering pots. Many containers can be made into wicking beds, with small ones easily made from polystyrene boxes used to transport broccoli. With good design they can be made to fit corners and modules can be linked together. They have the same advantages of growing in pots. The water reservoir is the main advantage; reducing water stress on plants which increases their productivity.

### Pros include:

- Can be set up on poor or contaminated soils, paving or concrete
- Save or use space. Can fit next to walls and in corners
- Reduced water use
  - excess water is captured in reservoir
  - less evaporation in watering from below vs surface irrigation
- Steady supply of water from reservoir reduces plant stress, increases productivity
- Can leave unwatered for a while in summer due to water reservoir
- Reduced nutrient loss past root zone
- Can set up worm towers in for in bed fertilising
- Grow a mix of vegetables in the same garden bed
- Raised beds warm faster in winter than normal beds – thus veggies grow more quickly in spring and longer in autumn
- Prevents tree roots from entering garden beds
- Height is accessible
- Sturdy frames can be built on to the sided of wooden beds for trellising or shade
- Temporary garden – move it when you move (though hard work)
- Can be adopted for aquaponic systems



### Cons include:

- Need to be made on a level surface
- Initial outlay for material can be high
- Installation of larger beds requires some building skills and tools, and is physically challenging
- Not easy to take apart if needing to shift
- Reduced soil depth can limit some options. E.g. not suitable for canes such as raspberries
- Reduced in bed staking options for taller plants, due to risk of puncturing water tight membrane
- Excess nutrient build-up can occur in water reservoir which can cause fungal growth
- Water can stagnate and minerals can accumulate – flushing out reservoir is essential
- Can be broken by puncturing the membrane. They are physically challenging to repair



Refer to **Pack E** for detailed information on wicking beds.



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