

# Self Watering Garden Bed and using water wisely

Chris Jones  
3 February 2023



- Water saving tips for your garden
- How to make a wicking bed



# Water Saving In Your Garden

## Plant selection – water-wise plants

- Different plants have different water requirements.
- Generally young plants need more frequent watering
- A lot of natives will survive on only rainfall once established

# Water Saving In Your Garden

## Garden Design

- Group plants together that have similar water requirements
- Divide plants into high, medium and low water-use zones in your garden and in your beds.
- Don't cut your lawn too low
- High water-use plants are best located in areas where they are sheltered from drying winds and strong sunlight.
- Plant trees to create natural shade and windbreaks to reduce evaporation.

# Water Saving In Your Garden

## Mulch

- Reduces water evaporation by up to 60%
- Insulates the soil
  - Cooler in summer
  - Warmer in winter
- Improves soil structure as it breaks down
- Minimises weed growth
- How thick?

# Water Saving In Your Garden

## Types of Mulch

- Straw types – sugarcane, lucerne, pea straw, hay
  - Improves the soil as it breaks down
  - Good around vegetables and seedlings
  - Breaks down quickly
- Wood types – woodchip, pine bark, eucy mulch
  - Nitrogen draw down if too fresh
  - Good around established trees and shrubs
  - Slow to break down

# Water Saving In Your Garden

## Types of Mulch (continued)

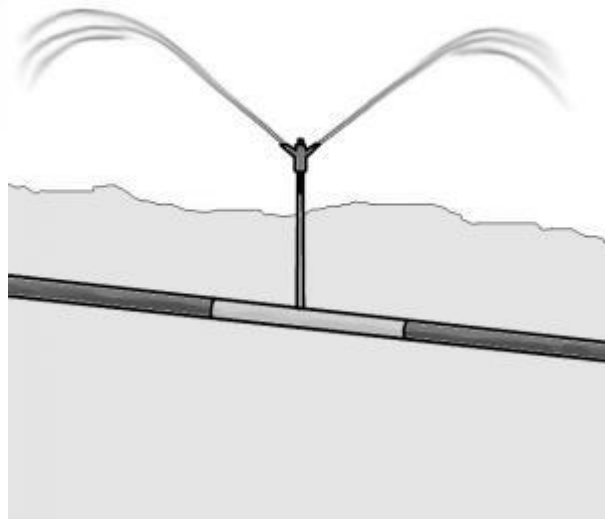
- Compost and manure
  - Improves the soil as it breaks down
  - Can introduce weeds
  - Don't use fresh manure
- Inorganic – pebbles, gravel, scoria, plastic
  - Can make the soil hot
  - Does not break down
  - Good in pots

# Water Saving In Your Garden

- Improve your soil
  - Your soil acts as a reservoir for water, keeping your plants alive
  - It can store a lot more water if it includes plenty of organic matter. Add plenty of compost, mulch or manure whenever you can
  - Water crystals and wetting agents allow water to easily soak into the soil, which may help if your soil has difficulty absorbing water.
  - Use perlite or vermiculite in potting mix to improve aeration and water holding.



# Irrigation



# Water Saving In Your Garden

- Hose fittings – go for quality



# Water Saving In Your Garden

- Get water to the roots



# Water Saving In Your Garden

- Drip irrigation, dripline, weeping hose



# Water Saving In Your Garden



# Water Saving In Your Garden

- Spikes for use with PET bottles



# Water Saving In Your Garden

- If you don't have a reel, coil the hose in a figure of eight pattern



# Water Saving In Your Garden

- When to water and how often
  - Early morning or evening are best
  - Water only when your garden or lawn needs it
  - Water the roots deeply, not the leaves
  - Watch the weather. Rainfall is a free and easy way to water your garden.
  - Be aware of your local water restrictions and water only when allowed.



# Water Saving In Your Garden

Some other tips:

- Controlling weeds reduces competition for water with your plants.
- Fertilise plants with organic liquid fertiliser or compost. Dry fertilisers take up some water from the soil and can raise salt levels.

# Water Saving In Your Garden

Install a water tank

- Types of water tanks – steel, concrete, poly
- Pumps – electric, petrol, solar, gravity
- Grey water
- Black water – don't use.

# Self Watering Garden Bed



# Self Watering Garden Beds

- Sometimes called a Wicking Bed
- Discover how to build a low cost, self-watering vegetable bed.
- Step by step demonstration and instructions
- One lucky winner gets to take home the final bed
- Hands on



# What is a Self Watering Garden Beds?

- A plant container with a reservoir that allows water to be drawn up into the soil
- Advantages
  - Can be left for longer periods without watering
  - It waters plants from the bottom
- Disadvantages
  - Depth of soil is limited
  - The container is heavy



# What to grow in your self watering garden?

## Vegetables

- Leafy greens
- Tomatoes
- Capsicum
- Chilli
- Spring onions



# What to grow in your self watering garden?

## Herbs

- Mint
- Sage
- Oregano
- Basil
- Coriander
- Chives
- Parsley



# What to grow in your self watering garden?

## Fruits

- Strawberries
- Blueberries





# What to *not* grow in shallow containers

- Carrots
- Parsnips
- Asparagus
- Pumpkin
- Other plants that spread or with deep roots



# Wicking beds can be raised

## Vegepod



# Types of Wicking Beds

- Raised beds made of timber, masonry, steel or plastic.
- Kit form or make your own
- Tubs
- Baths
- Smaller containers



# Types of Wicking Beds

- IBC Tanks
- Cut in half
- Wicking bed
- Use food grade tanks



# Other Types of Wicking Beds

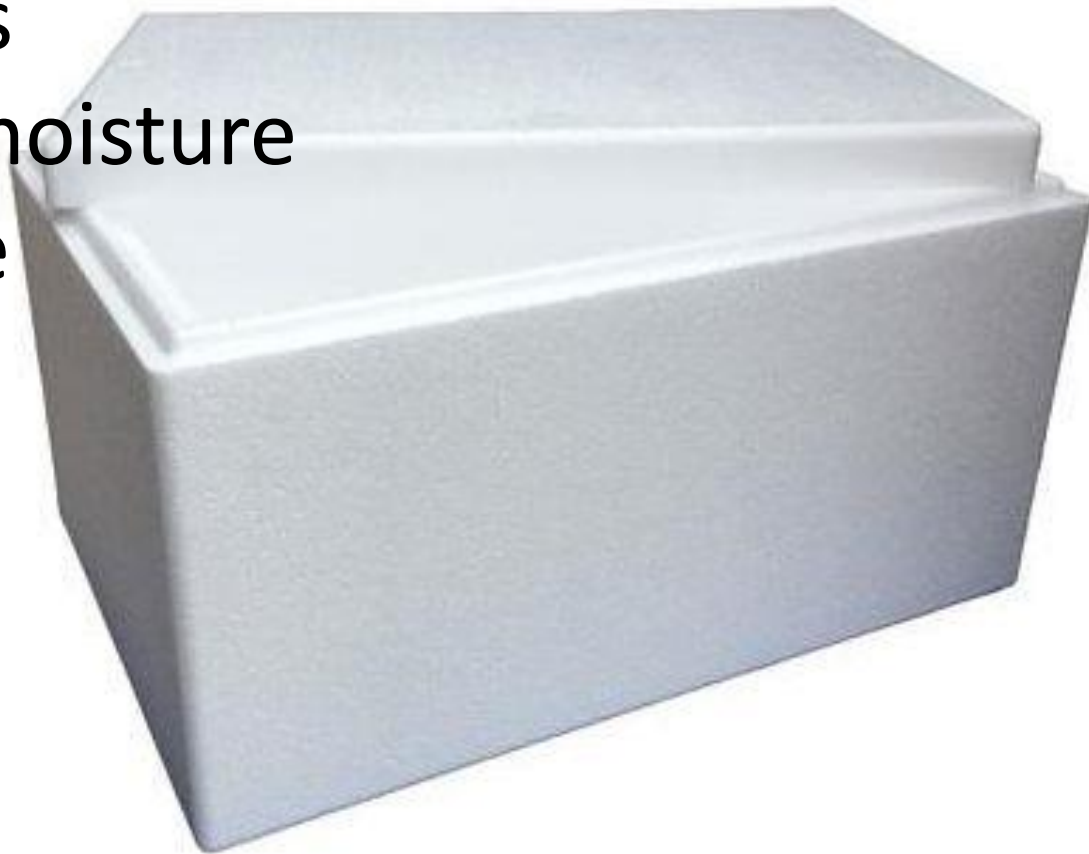
- Milk cartons
- PET bottles
- Cut in half



# Types of wicking beds – polystyrene containers

## Advantages

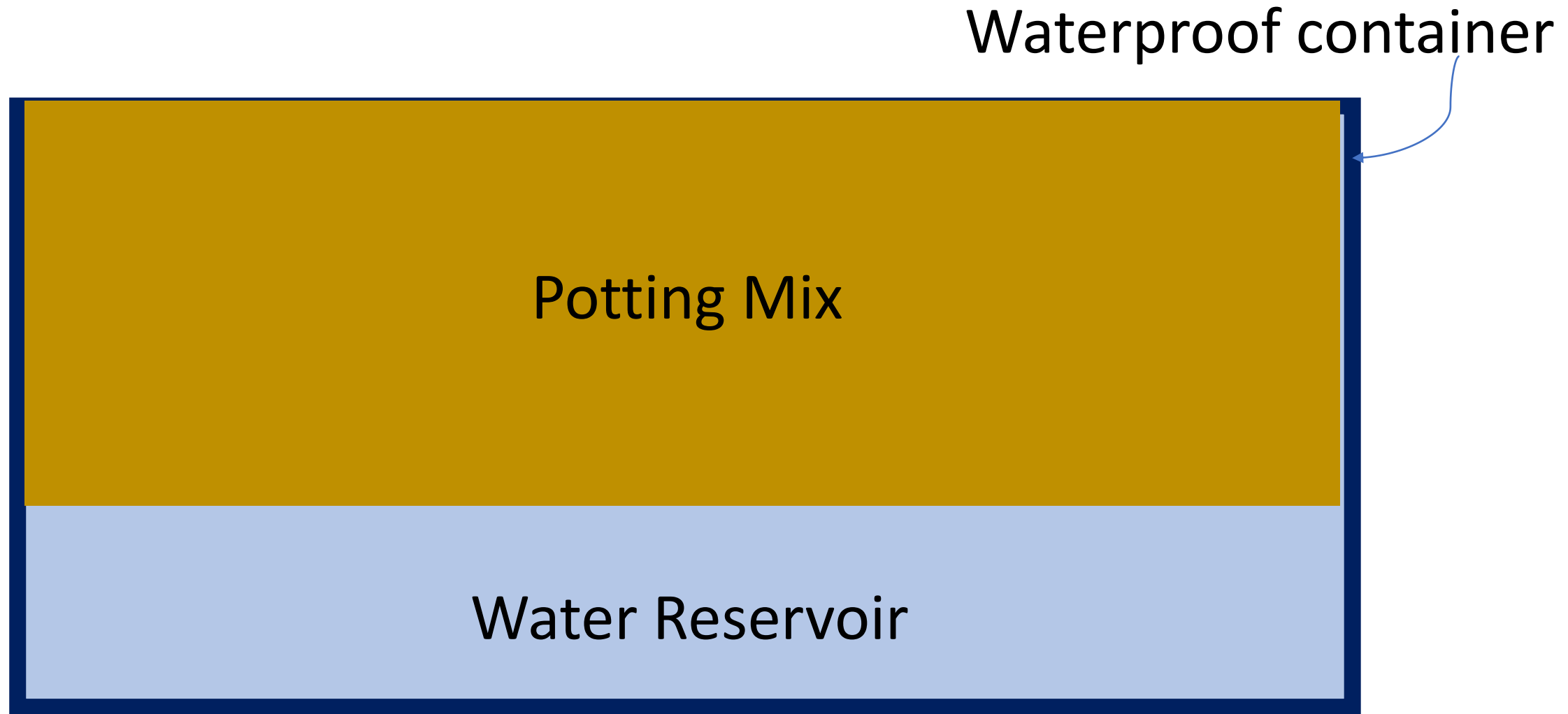
- Light in weight
- Non-porous preserving moisture
- Inexpensive
- Insulated
- Recycled



## Disadvantages

- May split under growth pressure from roots
- Easily damaged
- Needs to go to landfill eventually

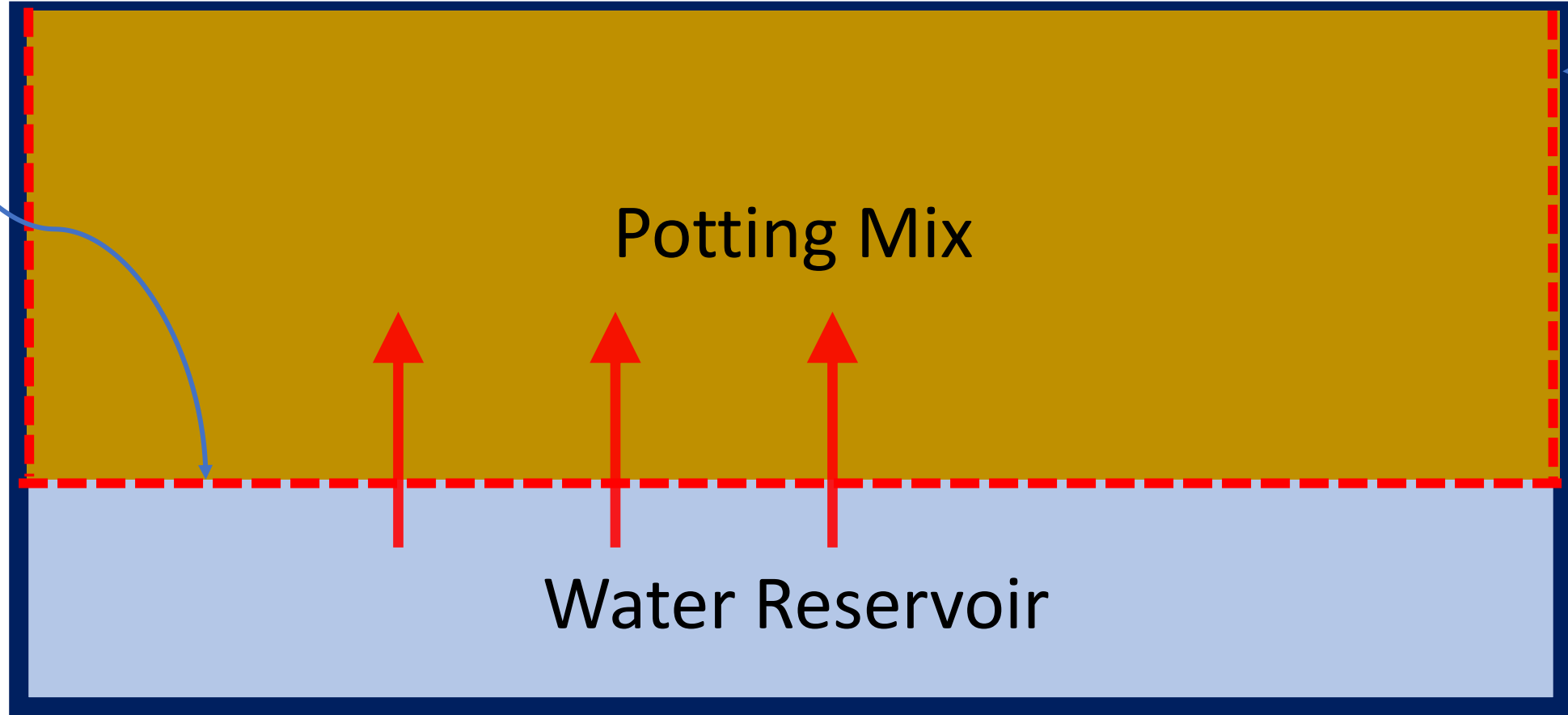
# Wicking bed components



# Wicking bed components

Permeable membrane

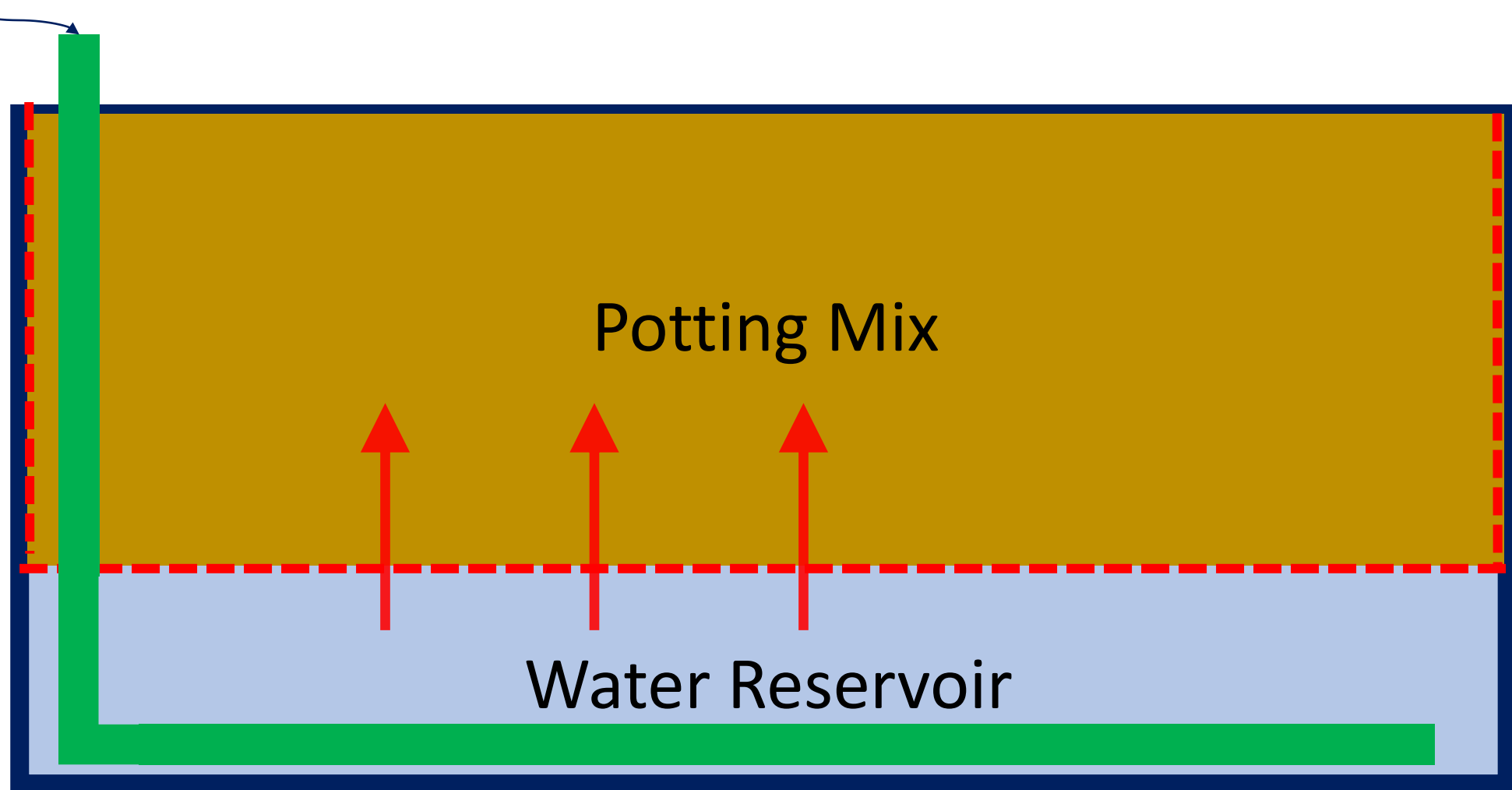
Waterproof container





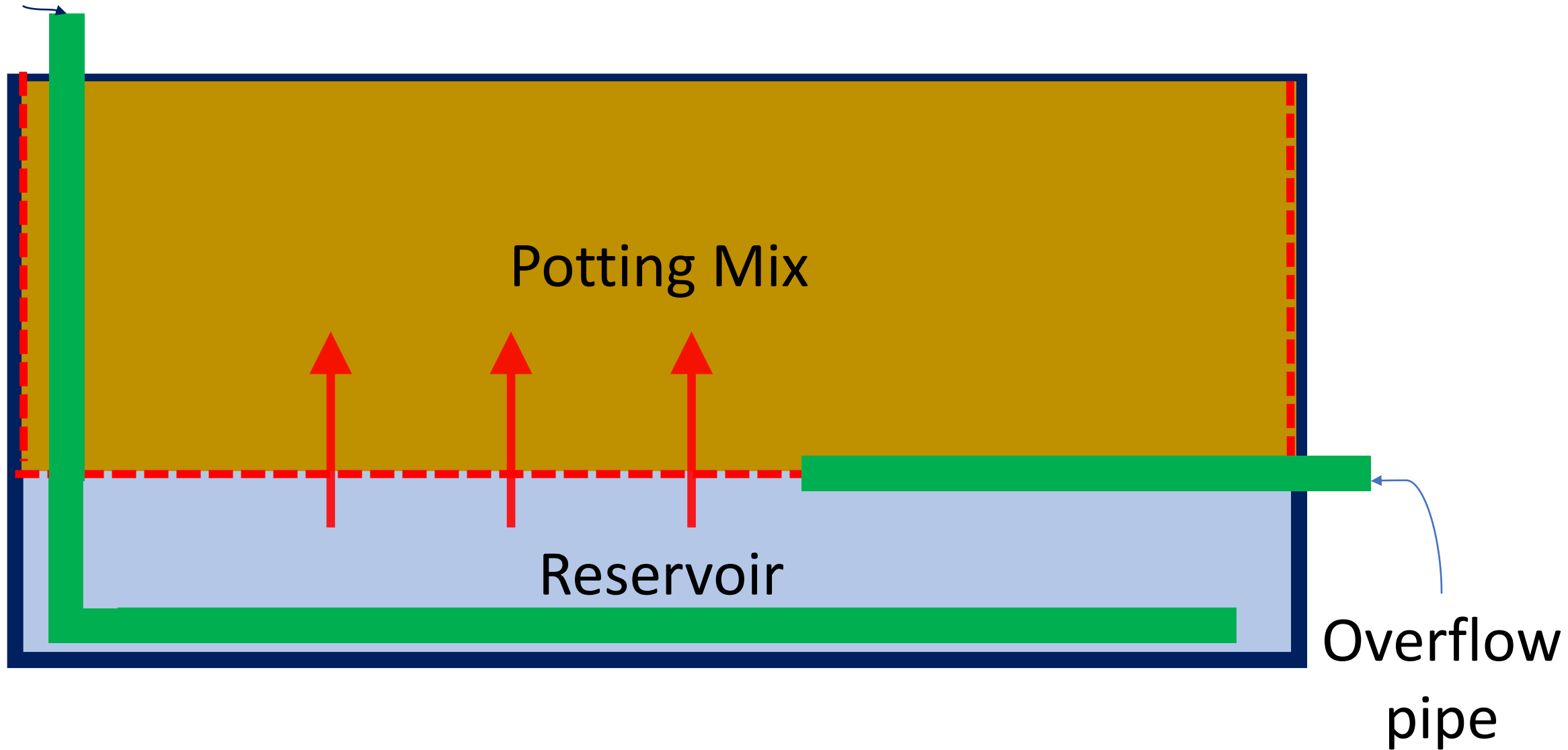
# Wicking bed components

Filler Tube



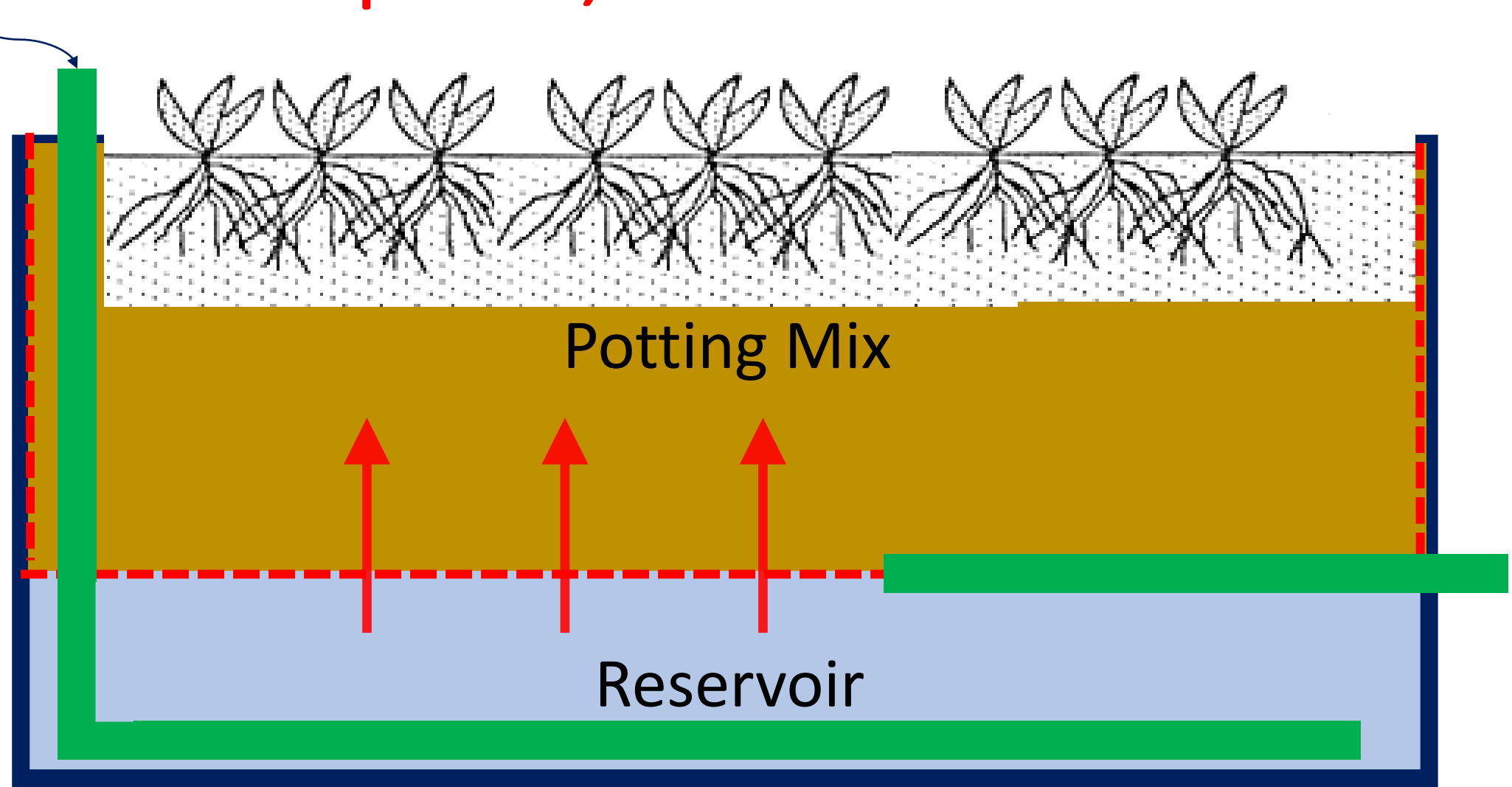
# Wicking bed components

Filler Tube



Water here

Add plants, mulch and water



# Set Up Considerations

- Needs adequate sunlight
- Fertilising
- Overflow drainage
- Mulch
- Use good quality potting mix



# Potting mix for containers

- Good quality potting mixes contain fertiliser, wetting agents and water retention crystals
- Use speciality mixes for special purposes (e.g. vegetables, citrus, roses)
- Read the label and look for the red ticks



# Other considerations ...

- If you have limited space, choose to grow vegetables you like to eat, are expensive to buy or hard to find.
- Fast-growing vegetables such as radish, lettuce and basil can be grown in the same container as larger plants such as tomatoes
- Don't grow vegetables that take up a large amount of space (such as pumpkins and zucchini) or take months to grow (such as parsnips and asparagus).
- If you've got children or grandchildren – get them involved.

# What do I need to set up a wicking bed in a small container?

- A container such as a polystyrene box or plastic storage crate
  - No holes or use a liner
- Slotted pipe with filler pipe and cap
- Perlite or small pebbles
- Overflow pipe
- Geotextile or shadecloth
- Potting mix
- Seeds/seedlings
- Mulch

# Set up a wicking bed in a small container





# Set up a wicking bed in a small container



# Set up a wicking bed in a small container



# Set up a wicking bed in a small container



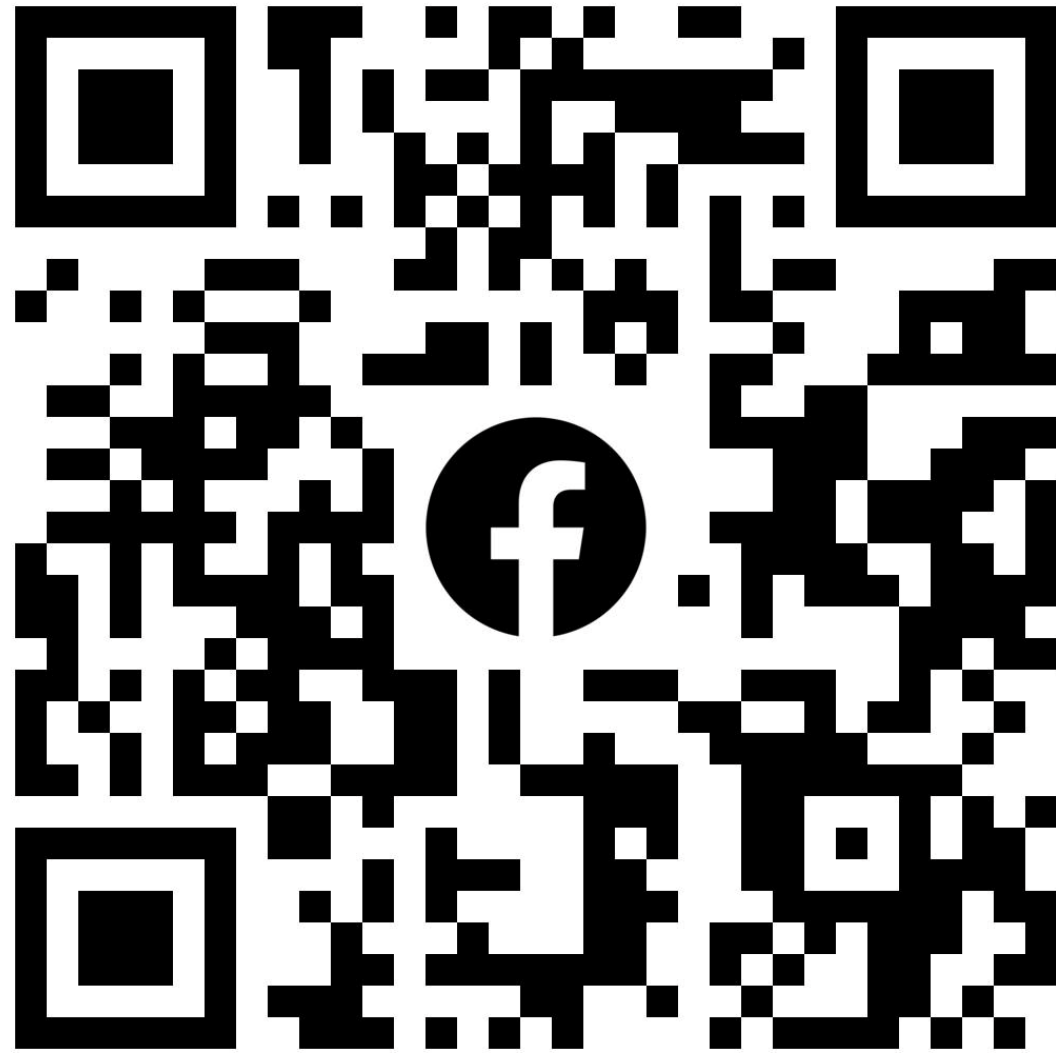
# Set up a wicking bed in a small container



# Community Environment Centre, Annangrove



Follow us on Facebook



Community Environment Centre - Annangrove