



Pot up plants

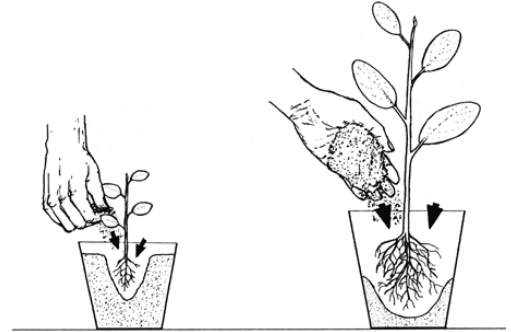
AHCNSY201A

By the end of this topic, you should be able to:

- Prepare for potting up operations
- Prepare growing media
- Pot up propagated plants
- Complete potting up operation

What is potting up?

- When plants are about to outgrow their containers they need to be transplanted into larger pots or containers
 - This process is called 'potting up'
- Potting up to the right sized container will ensure that plants are healthy and strong
 - Potting up can happen more than once if a plant is kept for a long time



To know when to pot up, watch for roots spiralling around the bottom of the container.

However, if the plant is very root bound it should be thrown out

- To prepare for potting up, you should familiarise yourself with the following:
 - Task requirements (e.g. planting plan)
 - Determine plant requirements
 - Determine planting methods (e.g. placement, depth, pot size)
 - Identify required materials (e.g. media mix, required levels)
 - Apply active listening when receiving instructions
 - Clarify any unclear instructions with your supervisor
 - Work area
 - Identify any WHS hazards (e.g. injuries to your person, spread of pests/disease, environment contamination, heat stroke, manual lifting injuries)
 - Rectify and/or report hazards or abnormalities to your supervisor within a timely fashion – especially emergency situations

Preparing for potting up

- To prepare for potting up, you should prepare PPE, machinery, tools/equipment and materials:
 - **PPE may include:** Long sleeved shirt, disposable overalls, dust mask, gloves, hair nets/caps, wide brimmed hat, work boots, boot covers
 - **Machinery may include:** Soil mixer (to mix media ingredients), autoclave, auger, airflow machine
 - **Tools and equipment may include:** Broom, buckets, dibblers, forceps, hoses, hygrometer, plant growth chambers, microscopes, plant trolley, shovel, spade, sterile benches, thermometers, trowel, tweezers, watering can, wheelbarrow
 - **Materials may include:** Agar, fertiliser, plants, pots, potting mixes (sand, vermiculite, perlite, peat), sterilising solution
- Ensure they are appropriately selected, prepared and used for the task, following manufacturer recommendations

- To ensure plant quality is maintained, it is important to uphold hygienic practices
- Diseases and pathogens can be spread in many ways:
 - By workers/visitors' clothing
 - Via other plant material (e.g. diseased plants)
 - Naturally (e.g. in water or on the wind)
 - Via pests

- Hygienic practices include:
 - Wiping down surfaces with sterilising solution before commencing work
 - Sterilising pots and equipment
 - Remove media and soak pots and trays and in sterilising solution
 - Rinse sterilising from pots and trays, using clean water
 - Wash equipment in the same solution and rinse with clean water
 - Keeping yourself clean
 - Keep your boots and clothes clean
 - Regularly wash your hands
 - Not reusing old potting mix
 - Old potting mix should be recycled in compost or disposed of appropriately

Prepare growing media

- Growing media is to be measured and mixed according to the planting plan. It may contain the following ingredients:
 - **Peat:** Holds moisture and nutrients in the mix
 - **Sand:** Improves drainage so the mix is not too wet. Also increases pot weight to avoid plants blowing over
 - **Vermiculite/Perlite:** Improves drainage and increases aeration
- Growing media should be able to hold moisture for plants to grow – but water should not be visible (field capacity)

Pot up propagated plants

- Follow these steps to pot up a plant:
 - Wash recycled pots in sterilising solution to kill bacteria and fungi
 - Half-fill the new pot with moist potting mix
 - Place a hand over the top of the existing pot and turn it upside down
 - Tap the base of the pot, squeeze the sides and ease the plant away leaving its roots in tact
 - Place the plant in the new pot, keeping the same media level as in the existing pot
 - Be careful not to bury the stem or it will rot and die
 - Feeding roots should still be at the same level, if buried deeper it will change the available nutrients
 - Fertilise the plant
 - Ensure not to place it too close to the plant's stem
 - Water the plant thoroughly – avoid having too much or not enough water
 - Determine a watering regime suited to the plant and growing medium
 - Aim to eliminate air pockets and prevent dehydration
 - Place plant in a shady position initially, gradually moving on to full sun

- Common problems with nursery plants include:
 - Availability of water
 - Availability of nutrients
 - This may be treated by use of a fertigation system (or Osmocote as a backup)
 - Any fertiliser should be applied at the specified rate and away from the plant's stem
 - Availability of light
 - Temperature
 - Weeds
 - Weeds may compete with plants for water, nutrients and light
 - Presence of pathogens

Completing potting up operation

- As part of completing potting up operations, you are required to complete the following practices:
 - **Maintain, clean and store tools and equipment**
 - Wash all tools of media using a sterile solution
 - Oil tools to prevent rusting and splinters
 - Keep tools sharp
 - Report faults that are discovered
 - **Dispose of materials that cannot be reused or recycled**
 - Ensure that you follow the organisation's requirements for handling and disposing of nursery waste
 - **Record workplace information on appropriate paperwork**
 - Ensure you clearly record your findings, being mindful of people's varying backgrounds/abilities
 - Records of potting up tasks may be kept electronically
 - Make sure the plant label stays with the plant in its new pot