



Care for nursery plants

AHCNSY202

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

- Prepare to work
- Maintain the nursery environment
- Maintain nursery plants
- Complete nursery plant maintenance operation

What is a nursery environment?

- Nursery environments may include:
 - Glasshouses
 - Shade houses
 - Hardening-off areas

Preparing to care for nursery plants

- To prepare to care for nursery plants, you should familiarise yourself with the task requirements (e.g. plant growth and health requirements)
 - Apply active listening when receiving instructions
 - Clarify any unclear instructions with your supervisor

Preparing to care for nursery plants

- To prepare to care for nursery plants, you should familiarise yourself with specific workplace information
 - This may be site-specific information, such as site safety plan
 - This may be applicable guidelines to your workplace, for example:
 - *Nursery Industry Water Management Best Management Practice Guidelines 2010*, which addresses:
 - Efficient water use to minimise the business' demand on the water resource
 - Irrigation management tools to ensure more productive and efficient use of water
 - Increased reuse of waste water to minimise the demand of the business on the water resource
 - Effective management of sediment and litter
 - Maximising the retention of nutrients to improve efficiency of production and maintain water quality
 - Environmentally responsible use of plant protection products to produce quality products

Preparing to care for nursery plants

- To prepare to care for nursery plants, you should familiarise yourself with the 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 to your supervisor within a timely fashion – especially emergency situations

Preparing to care for nursery plants

- To prepare to care for nursery plants, you should organise PPE, tools and equipment
 - **PPE must include:** Long sleeved shirt, gloves, wide brimmed hat, work boots
 - **Tools and equipment may include:** Bleach, broom, buckets, fertiliser, herbicide, hose, knife, plant trolley, secateurs, shovel, sprayer, trowel, watering can, wheel barrow
- Ensure they are appropriately selected, prepared and used for the task, following manufacturer recommendations

- Nursery environments will be irrigated, by one or more of the following methods:

Irrigation method	Description
Hand watering	Allows water to be delivered at times and in amounts deemed appropriate by the operator.
Drip irrigation	Usually used for larger container plants. Expensive and is high maintenance to clear pipes and drips.
Ebb and flow mat	Water is supplied to the bottom of the pot and it moves up. May save water, but can be costly.
Overhead irrigation	Designed to cover a large area. Can be wasteful as water falls between pots.

- As part of maintaining the nursery environment, you are required to monitor and maintain irrigation systems:
 - Daily checks for leaks and clogged/blocked nozzles
 - Checking performance to ensure optimum results
 - Water output and distribution can be measured to determine efficiency
 - Servicing components
 - The following can be repaired/replaced: Drip line tapes, emitters, filters, outlets, pump screens, sprinklers, strainers
 - The following should be reported, rather than repaired by yourself: Faulty pumps, valves, electrical components or computer systems
 - Record your observations and servicing in the maintenance book

- As part of maintaining the nursery environment, you are required to monitor and maintain temperature controls
- Follow the rule “cool top, warm bottom”
 - An ideal nursery temperature is between 20°C and 25°C
 - Pots may need to be warmed to stimulate root growth, by covering with plastic or using under-bed or bench heaters

- To ensure plant quality is maintained, it is important to uphold hygienic practices
- Diseases 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 bench surfaces with bleach before commencing work
 - Sterilising pots and equipment
 - Remove soil and soak pots and trays and in bleach solution
 - Rinse bleach from pots and trays, using clean water
 - Wash equipment in the same solution and rinse with clean water
 - Not reusing old potting mix
 - Old potting mix should be recycled in compost

- Common problems with nursery plants include:
 - Nutrient deficiencies
 - These can be noted by unusual plant shapes/colours, stunted or unhealthy leaves
 - Fertiliser can rectify such deficiencies, but ensure that the correct rate is applied
 - Plants can also be pruned to improve or maintain health (e.g. removing deadwood, increase the yield/quantity of flowers and fruits)
 - Stability issues
 - Be sure to stake and tie plants, as required
 - Prune plants to control/direct growth and reduce risk of falling branches

Maintain nursery plants

- Common problems with nursery plants include:
 - Unsuitable watering (e.g. too much or not enough)
 - Generally plants are watered a few times a day to ensure the potting mix stays moist, but is not waterlogged
 - Watering requirements differ from plant to plant
 - The Nursery Industry Water Management Best Practice Guidelines outline that the following need to be monitored to determine how much water plants need:
 - Water holding capacity of the growing media
 - The daily evaporation at the nursery
 - How much water the plants use
 - The application rates of the irrigation system

Be sure to follow the directions of your supervisor

- Common problems with nursery plants include:
 - Unsuitable environment
 - Ensure plants are not too hot/cold
 - Ensure sufficient ventilation by opening up shutters and using fans
 - Pipe heating can be used to heat the whole nursery environment
 - Ensure plants are not too close together
 - Plants should be blocked and spaced appropriately, considering the type of plant and its growth rate
 - Observe plant pruning requirements
 - Avoid competition from:
 - Weeds – by hand weeding or applying herbicides
 - Pests – by implementing cages/screens and using pesticides

- As part of completing nursery activities, you are required to complete the following practices:
 - Maintain, clean and store tools and equipment according to manufacturer's specifications
 - 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 and abilities