



Implement a plant establishment program

AHCPGD301A

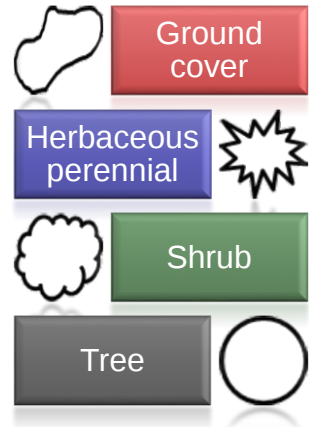
By the end of this topic, you should be able to:

- Prepare to establish a planted area
- Prepare the planting area
- Undertake planting operation
- Review the plant establishment works
- Complete establishment works

Preparing to establish a planting area

- To prepare for planting tasks, you should familiarise yourself with the following:
 - Task requirements
 - Refer to the planting plan when marking out layout of planting site, including:
 - Plant species/cultivars and their requirements
 - Location of required planting, including spacings
 - Earthworks (e.g. required areas, depths, volumes, ratios, quantities)
 - Location of main features
 - Apply active listening when receiving instructions
 - Clarify any unclear instructions with your supervisor

The following symbols may be found on a planting plan



Preparing to establish a planting area

- To prepare for planting tasks, you should familiarise yourself with the following:
 - Workplace information
 - Refer to site-specific information, such as a plant establishment plan
 - Take note of key, north point, quantities, spacings, depths
 - Identify underground services for the site (e.g. from plans, supervisor or contacting Dial Before You Dig)
 - For example: Telephone lines, gas, electrical, water, cable

Be sure to maintain a clean and safe work area throughout and on completion of work

Preparing to establish a planting area

- To prepare for planting tasks, please note the following:
 - Legal and guidance information
 - Abide by laws applicable to your workplace, such as:
 - Acts [e.g. *Work Health and Safety Act 2011 (Qld)*]
 - Regulations [e.g. *Work Health and Safety Regulation 2011 (Qld)*]
 - Codes of Practice [e.g. *How to Manage Work Health and Safety Risks Code of Practice 2011 (Qld)*; *Hazardous Manual Tasks Code of Practice 2011 (Qld)*]
 - Refer to guidance documents suited to your workplace, such as:
 - *Australian Standard 4419-2003 Soils for landscaping and garden use*
 - *Australian Standard 4454 Composts, soil conditioners and mulches*

- To prepare for planting tasks, you should undertake the following in the work area:
 - Identify any WHS hazards, such as:
 - Injuries to your person
 - Spread of pests/disease
 - Environment contamination
 - Heat stroke and/or sunburn
 - Weather
 - Underground services
 - Rectify and/or report hazards to your supervisor within a timely fashion – especially emergency situations

Preparing to establish a planting area

- To prepare for planting tasks, you should ensure the availability of PPE, machinery, tools and equipment
 - PPE may include: Gloves, wide brimmed hat, work boots, eye protection, long sleeve shirt and long pants
 - Safety equipment may include: Barricades and signage
 - Machinery may include: Bobcat, brick saw, compactor, post hole digger
 - Tools may include: Shovels, pitch forks, rakes, secateurs, hammers, bolsters, screeds, edgers, mattocks, trowels, crowbars, pruning saws
 - Equipment may include: Marking paint, wheelbarrows, stakes and ties, irrigation components, hoses, string lines, levels, tapes, soil improvement additives, fertilizer, soil wetters, mulch, marking paint

Ensure they are appropriately selected, prepared and used for the task following manufacturer's specifications

- Any faulty machinery, tools and/or equipment should be reported to your supervisor
 - Follow the 'Stop, Tag, Report, Record' (STRR) approach:
 - Stop using the equipment
 - Tag the faulty equipment
 - Report the faulty equipment to your supervisor
 - Record the details of the fault

- To prepare for planting, ensure you carry out the following:
 - Remove competing plants and vegetation
 - However, try to minimise the impact of planting activities on the surrounding environment as much as possible
 - Consider the needs of the plant, as per specifications:
 - Ensure soil has been tested/modified according to the needs of the plants to be installed
 - Common nutrients to be applied include nitrogen (N), phosphorus (P) and potassium (K)
 - Organic matter/humus can improve aeration and soil structure, provide nutrients and water
 - Soil amendments can improve moisture retention, drainage and pore spaces, provide nutrients
 - Consider irrigation requirements
 - Adjust the size of the planting hole for each plants' needs

- To prepare for planting, be mindful of the following:
 - Ensure that seedling roots do not come in contact with ground affected by residual herbicides
 - The effects of climate on planting operations, considering weather/season
 - In tropical/sub-tropical environments, plant trees and shrubs in Autumn
 - The soil has received maximum heat from the summer sun
 - This is after the summer rains

- Be sure to inspect plant species and cultivars for health and vigour
 - Identify plants with major defects
 - Example major defects may include:
 - Root ball defects (e.g. dry, water repellent, loose root balls)
 - Plants that cannot be removed from their pot (i.e. root bound)
 - Stunted or unhealthy branches/leaves
 - Broken canopy
 - Pests or diseases evident
 - Plants with major defects should be returned to the supplier
 - Identify plants with minor defects
 - Example minor defects may include:
 - An isolated area of unhealthy leaves, fruits or flowers
 - Minor pest or diseases
 - Plants with minor defects should be trimmed/treated prior to planting for health and vigour

- Be sure to inspect plant species and cultivars for health and vigour
 - Pest infestation may be indicated by:
 - Presence of insects/larvae
 - Signs of damage
 - Distressed plant appearance
 - Disease may be indicated by:
 - Presence of dark spots
 - Chlorosis
 - Distressed plant appearance
 - Nutrient deficiencies may be indicated by:
 - Stunted leaf shapes
 - Unhealthy leaf colours (e.g. dead spots, dark green with tints of purple)

Remedial action should be taken to treat such issues, for example:

- **Pests:** Pesticides, Insecticides
- **Diseases:** Fungicides
- **Nutrient deficiency:** Fertilisers, pH adjustment

- Note the following when installing plants:
 - Water the hole prior to plant installation
 - After placing the plant in the hole, backfill with the removed soil
 - Soil does not need to be packed tightly
 - Air is needed in the soil for the plants to grow
 - Apply mulch as per planting plan (e.g. type and depth)
 - Use an organic mulch (generally applied 100-200mm deep) to:
 - Provide the plant with nutrients
 - Keep roots at a more even temperature and prevent soil from drying out too quickly
 - Limit the growth of weeds
 - Leave an area around the trunk to ensure adequate water to the feeding root zone
 - Leave an area around the trunk to prevent diseases

Undertaking planting operation

- Note the specific needs of plant species and cultivars, to avoid stress:
 - Ensure appropriately spacing and ventilation
 - Watering requirements
 - Verify that the root ball is damp prior to planting
 - For bare-rooted plants: Soak roots in water, clean off unwanted spag moss/soil, dispose of any packaging
 - Ensure plants are provided with an adequate amount of water
 - Treat soil for plant health (e.g. fertiliser)
 - Prune plants, as necessary, according to the needs of the species/cultivars
 - This ensures plants develop a sound framework for their growth and habit

- When reviewing plant establishment, complete the following:
 - Check that the quality requirements of the plant establishment plan specifications have been met (e.g. surface finishes, time constraints met)
 - Identify any plants that have been incorrectly planted
 - Identify situations that will prevent plants from reaching their full potential
- For any identified issues:
 - Record and report your findings
 - Implement and record any remedial action undertaken

- As part of completing planting tasks, you are required to complete the following practices:
 - Clean up the work area
 - Record and/or report planting activities to your supervisor
 - 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 waste, debris and pollutants