

RTC5011A

Unit Descriptor

Unit Sector

Collect and classify plants

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No sector assigned

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for plant collecting	1.1 Purpose and objectives for collecting range of plants is confirmed. 1.2 Area, location and/or habitat for collecting is defined. 1.3 Resources to assist in plant location and identification are determined and prepared. 1.4 Equipment required for collecting and preserving specimens is determined and prepared. 1.5 Licences and/or permission to collect specimens are sought from landowner or managing agency. 1.6 Range of likely operating conditions, hazards and difficult/sensitive environments are assessed for impact on collecting and preserving specimens. 1.7 OHS hazards associated with plant collecting are identified.
2. Collect plant specimens	2.1 Collecting ethics are observed when selecting specimens for picking. 2.2 Relevant information about the specimen, its characteristics and occurrence is entered into a field note book and location coordinates are noted. 2.3 Specimen collected provides adequate material for identification and preserving. 2.4 Specimens are correctly tagged and stored for later identification. 2.5 Appropriate OHS legislative requirements and work practices are followed.
3. Preserve specimens	3.1 Preservation of specimen is undertaken while still fresh. 3.2 Specimen is cleaned and prepared for preserving according to enterprise guidelines. 3.3 Preserving of specimen carried out using either pressing or drying techniques. 3.4 Dried specimen is mounted and labelled with accurate information from notebook.
4. Identify plant specimens	4.1 Resources are identified and accessed to assist in identification. 4.2 The basic characteristics of a plant are identified and documented. 4.3 Relevant plant key is used to identify plant. 4.4 Plant identity is confirmed against botanical description of species. 4.5 Plant identity is documented on label according to enterprise guidelines.

KEY COMPETENCIES

What processes should be applied to this competency standard? There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the key competencies, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

Key Competency	Example of Application	Performance Level
Communicating ideas and information	Ideas and information relating to plant identification can be recorded in field note books and discussed with colleagues.	3
Collecting analysing and organising information	According to current recommended botanical practices and with regard to collecting ethics.	3
Planning and organising activities	Equipment, materials and work procedures for identification will need to be sourced and arranged before collection activities.	3
Working with others and in teams	Plant identification may involve working with other members of a team to complete the program, or working alone.	2
Using mathematical ideas and techniques	Measuring the length, regularity and period of plant identifying features will require mathematical application.	2
Solving problems	Problems relating to the difficulty of identifying certain features of a plant or using a taxonomic key may arise.	1
Using technology	Technology may be applied in the identification and electronic recording of plants, research procedures and telecommunication used for the provision of information about plants to clients and customers.	1

RANGE STATEMENT

What range of plants may be relevant to this standard?

Plants may be native or introduced species including weeds.

What resources may be used to identify plants?

Resources may include enterprise or public library, business and research organisation websites, enterprise supervisor and experienced team colleagues, published books and journals (e.g., floras), and experts in the local area or industry sector. It may also include personal or enterprise reference collection.

What equipment may be used to recognise plants?

Equipment may include computer assisted or manual word processors, telecommunication appliances, plant fixing materials, secateurs, folders and exercise books, hand lens, dissecting microscope, dissecting equipment, pens and pencils.

What OHS hazards can be included in this standard?

Hazards may include manual handling, using tools and equipment, noise, dust, solar radiation, falls and tripping, spider and insect bites.

What collecting ethics should be observed in the field?

Collecting ethics requires that, where necessary, no plant is collected from where it is prohibited, approval is gained from the landholder and/or permits are obtained to remove plants where required, that disruption to the site and surrounding vegetation and habitats is minimised, and that there is appropriate justification to collect less common or rare plant specimens from a site.

What may be included when documenting a plants occurrence in natural areas?

Height, canopy cover, dominant species and distribution of associated vegetation association and/or plant community, and habitats and preferred habitat/s in which plant grows.

What relevant information will need to be entered into field note books?

Information that

- identifies the particular specimen by number, when it was collected and the collectors name.
- describes the plant itself such as size, life form, flower colour, bark colour and any other characteristics about the plant.
- outline the location of the plant specimen - this may require use of maps and recording of nearby landmarks.
- describes the ecological characteristics of the area including the physical habitat such as type of soil, rocks, slope, elevation, aspect, moisture, and biological habitat such as vegetation structure, plant community/vegetation association and other nearby plants.

What is regarded as adequate material when collecting?

Adequate material includes all the parts needed for accurate identification and can include leaves, flowers, twigs, fruit, and seeds. For small herbaceous plants, the roots and either whole stems or tops and bottoms as leaf shape, size, and arrangement may vary from top to bottom.

Plant materials should be tagged with a number as they are collected.

What OHS requirements may be relevant to this standard?	OHS requirements may include identifying hazards, assessing risks and implementing controls, cleaning, maintaining and storing tools, equipment and machinery, appropriate use, maintenance and storage of PPE including sun protection, safe operation of tools, equipment and machinery, safe handling, use and storage of chemicals, correct manual handling, basic first aid, and safety procedures for protection of others.
What basic characteristics may be useful when identifying plants?	Plant characteristics may include the flower type, leaf arrangement and leaf shape. Other characteristics include flower colour, colours and/or markings, flower shape, size of the plant and its flowers and leaves, veining pattern of the leaves, texture of the leaves and stem, physical and biological habitat from where collected, number, size and shape of the reproductive parts, and any unusual features about the plant or its parts.
What nomenclature will be used to indicate a plants identity?	Scientific names including authorship will be used in identification of plants.
What documentation is involved in identifying plants?	Documentation may include a written description of the plant species including common and botanical names, visible characteristics, details of occurrence or origin, optimum growth requirements and/or a herbarium of plant samples preserved according to the requirements of the enterprise or industry sector.

EVIDENCE GUIDE

What specific knowledge is needed to achieve the performance criteria?	Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below: • Herbarium collection techniques and ethics. • Botany. • Physical and biological habitat types (including vegetation associations and communities where appropriate). • Plant nomenclature and taxonomy. • OHS legislative requirements and Codes of Practice. • Hazard identification assessment and control.
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What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

- Prepare for plant collecting
- Collect plant specimens
- Preserve specimens
- Identify plant specimens.
- Follow safe work practices.

Are there other competency standards that could be assessed with this one?

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

Essential Assessment Information

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.